The value of online surveys: a look back and a look ahead

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Abstract

Purpose – The purpose of this paper is to present a detailed and critical look at the evolution of online survey research since Evans and Mathur’s (2005) article on the value of online surveys. At that time, online survey research was in its early stages. Also covered are the present and future states of online research. Many conclusions and recommendations are presented.

Design/methodology/approach – The look back focuses on online surveys, strengths and weaknesses of online surveys, the literature on several aspects of online surveys and online survey best practices. The look ahead focuses on emerging survey technologies and methodologies, and new non-survey technologies and methodologies. Conclusions and recommendations are provided.

Findings – Online survey research is used more frequently and better accepted by researchers than in 2005. Yet, survey techniques are still regularly transformed by new technologies. Non-survey digital research is also more prominent than in 2005 and can better track actual behavior than surveys can. Hybrid surveys will be widespread in the future.

Practical implications – The paper aims to provide insights for researchers with different levels of online survey experience. And both academics and practitioners should gain insights.

Social implications – Adhering to a strong ethics code is vital to gain respondents’ trust and to produce valid results.

Originality/value – Conclusions and recommendations are offered in these specific areas: defining concepts, understanding the future role of surveys, developing and implementing surveys and a survey code of ethics.

The literature review cites more than 200 sources.

Keywords Content analysis, Research trends, Online survey

Paper type General review

Introduction

Internet-based research has come of age. About 13 years ago, when “The value of online surveys” was published in Internet Research (Evans and Mathur, 2005), online surveys were not yet well respected. Although now popular, SurveyMonkey (founded in 1999) and Qualtrics (founded in 2002), had not attained any real sophistication or critical mass as of 2005. Thus, they and other newer online survey methodologies were not even discussed in the earlier article. Things have certainly changed since 2005—with the rapid growth of online survey research and advances in technology, including the Internet of Things.

The 2005 article focused on the value of doing online surveys as compared with other modalities. It included the strengths and potential weaknesses of online surveys, aspects of respondent methodology for online surveys (as well as mail surveys), how to address the potential weaknesses of online surveys and a directory of online survey services.

In this paper, the focus is on the evolution of online survey research from 2005 to the present, as well as a look at what is ahead for survey research. Online surveys not only continue to grow in popularity and to mature as a research technique, but new technologies have also changed survey methodologies—and possibilities. While earlier research and interest as to online surveys were driven by the potential benefits of doing research online, the growth of online surveys has further brought to the forefront some limitations and pitfalls of doing surveys online.

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In view of its continuing growth, potential for future growth and issues that could negatively affect online survey growth, it is important to examine online survey research’s current and future usefulness to researchers and practitioners. The objectives of this paper are to look at what has changed since the 2005 article, to examine evolving trends and to see where they are heading. Extensive conclusions and guidelines are then presented as to the future role of survey research, developing and implementing survey methodologies, and a code of ethics for survey research.

A look back
In this section, we cover these topics regarding the period from 2005 to 2018: the growth of online surveys, the strengths and weaknesses of online surveys, research online surveys, online survey best practices and online survey firms.

The growth of online surveys
During 2005, online survey research amounted to just over $1bn in spending (Aster, 2004). At that time, predictions were that online survey research would grow significantly. That has certainly been the case. Since its infancy in the mid-1990s, online research has found ready acceptance among academic researchers and practitioners.

In 2005, the revenues of the global marketing research industry were estimated at $23bn, rising to $32bn in 2008 (ESOMAR, 2008). Then, after a decline amidst the Great Recession, the industry rebounded (Raben, 2014). According to Terhanian et al. (2016), online survey research alone accounted for $6bn in expenditures in 2015. For 2016, global marketing industry revenues were estimated at nearly $45bn (Statista, 2017a). Thus, based on our analysis, it is conservatively estimated that the share of all forms of marketing research devoted to online surveys is 20 percent. As a result, the revenues accruing from online surveys could have been as high as $9bn in 2016—an eightfold increase in comparison to 2005. This does not include the value of academic research based on online surveys. In looking ahead, the dramatic effects of new technologies on marketing research in general and online surveys more specifically need to be considered.

After an extensive review of information from trade associations, industry experts and academic journals, this is what we believe about the status of online survey research today:

- Overall data as to the current use of online surveys are hard to break out because of the way that survey data are often reported. For example, ESOMAR (2016) uses “online” as a catchall term for any type of research done online, yet it considers “automatic digital/electronic” separately. Statista (2017a), based on ESOMAR data, separates “online quantitative/research,” “automated digital/electronic surveys,” “mobile/smartphone online quantitative research” and “online research communities” in noting their usage.

- The best source for determining the present status of research is the GreenBook’s (2017) GRIT report. More than 1,500 marketing research professionals (both suppliers and buyers of data) from about 75 countries participated in the 2017 study and gave their input on various research topics. According to that study, for those engaged in quantitative research, 56 percent most often utilize online surveys and 14 percent most often utilize mobile surveys. For those engaged in qualitative research, a much small percentage engage in online surveys. This report is published free on a regular basis.

- Pew Research Center (2018b) reports that the dramatic increase in survey research via the internet over the past ten years is driven by three powerful industry trends: broadband connectivity, smart mobile device ownership and social media and social networking.
Virtually all major players in the global marketing research industry are engaged in at least some online survey research; and a number of them have their own online consumer panels. For example, Kantar (2018) has 5.5m online research respondents covering 45 countries. It also monitors social media in 67 languages among countries. At Ipsos (2017), 80 percent of its research involves surveys. And now, more than half of its surveys are online/mobile—up from 19 percent in 2005.

Over the same time period, considerably more research has been conducted regarding the theoretical bases needed for good online surveys, as well as the issues related to the implementation of online surveys. Much of this research addresses data quality and online survey usefulness.

So, how well do the concepts from the original article hold up? Let us review how online survey research has evolved from the vantage point of the 2005 article: strengths and weaknesses of online surveys, online surveys and other research formats, best uses and best practices and online survey firms. Then, we will look at future possibilities.

The strengths and weaknesses of online surveys
In the 2005 paper, a number of major strengths and weaknesses associated with online surveys were highlighted and discussed. Those strengths and weaknesses are shown in Figure 1, and they hold up remarkably well. The strengths are still in play; and the potential weaknesses still exist despite more than a decade to address them. They are often inherent with this format. Next, consider how many of these factors have evolved over the past 13 years.

Major strengths
Global reach. It continues to be a big advantage of online surveys. It is estimated that 52 percent of the world population has access to the internet via traditional devices or via mobile devices. Yet, there is a big difference among countries. The range includes countries with close to 100 percent coverage—such as Iceland—as well as countries in Asia and Africa that have more limited coverage—such as India at 34 percent and Central African Republic at 5 percent (Miniwatts Marketing Group, 2018). Institutions and governments are investing heavily in the internet infrastructure so as to connect as many people as possible. Thus, greater coverage for researchers interested in reaching global populations for their online studies can be expected. As of 2021, eMarketer (2017b) projects that nearly 54 percent of the worldwide population will use the internet at least once per month, representing more than 4.1bn people.

Flexibility. It has increased tremendously due to advances in technology. In the past, a survey designer had to learn to program and had to write the code in html to create a survey. Today, with the availability of various online survey programs, creating and launching an online survey has become very easy. Those programs provide flexibility in terms of question type, question format, response categories, layout, fonts and visual aspects. They also offer flexibility in terms of automatic logic control, branching, randomization of questions and assignment of respondents to experimental conditions. In addition, the programs provide flexibility in restricting/eliminating invalid responses.

Speed and timeliness. Speed and timeliness continue to be an advantage of online surveys. With the increase in those who have access to high-speed internet connections, survey speed and timeliness have reached another level. Moreover, now that a significant number of people access the internet via their smartphones, researchers can reach potential participants virtually anywhere and at any time.

Technological innovations. Technological innovations continue to influence and improve online research. It is estimated that about three-quarters of US households/individuals have
access to high-speed internet connections (Pew Research Center, 2018a). At the same time, innovations related to mobile communications and multiple sensors/technologies available in mobile devices enable researchers to collect complex data in more convenient ways. These technologies also enable better targeting of potential participants (such as geotargeting of potential participants via GPS tracking information).

Convenience. Convenience continues to be an advantage of online research. In fact, its importance and value have risen significantly. Because study participants can connect to the internet using various types of mobile devices (tablets, smartphones, etc.), it is becoming more
convenient for them to participate in online research. It is estimated that 14 percent of survey respondents already use mobile devices to participate in online surveys (GreenBook, 2017).

Ease of data entry and analysis. It continues to be key advantages of online surveys. Most online survey platforms offer some aspects of built-in analytic tools. They can carry out analysis immediately. Some offer graphic display capabilities in analyses. As such, researchers can do live analysis of the available data as more participants complete the survey and their data are collected.

Question diversity. It remains a major advantage. Since the 2005 article, it has become possible to add more question formats. In fact, some online survey platforms (such as Qualtrics) can automatically reformat a survey to suit the device the participant uses to connect to the internet.

Large samples easy to obtain. Although low response rates continue to be an important issue for online researchers, it is possible to obtain large samples at a fraction of the cost of traditional mail or telephone surveys.

Required or forced completion of survey questions. It is often an advantage. Although some participants may be reluctant to answer certain questions, survey programming can be such that the survey site would alert the participant to answer all questions. Thus, skipping or jumping to the next question without answering the question on the screen can be prevented. However, special consideration may be needed for sensitive topics.

Go to capabilities. Logical trees—whereby respondents are automatically directed to specific sections of the surveys/questions based on their responses to previous questions—have become more advanced and capable. Randomization of assignment of participants to specific experimental conditions or in response to specific questions is also possible.

Major weaknesses
Perception as junk mail. The perception of e-mail invitations to participate in online surveys as junk mail remains a large problem. It is estimated that a majority of e-mail is junk mail. According to Statista (2018a), 59 percent of all e-mails were spam in September 2017. As such, specialized firms have developed tools that automatically filter junk mail/spam/unsolicited mail. Unfortunately, online researchers may be victims of this problem. Also, many unscrupulous players have disguised themselves as researchers and attempted to collect information about people that they then misuse to sell to them or to cheat them. This has resulted in numerous people mistrusting any invitations they receive to participate in online surveys. As such, a vast majority of invitations to participate end up in the junk mail folder and/or are ignored by people.

Sampling. Concerns remain with regard to the skewed attributes of the internet population, sample selection and implementation, some respondents’ lack of online experience/expertise and technological variations.

Unclear answering instructions. While unclear answering instructions have been a weakness in the past, and continue to be a disadvantage for poorly designed questionnaires, a lot of research has been conducted on online questionnaire design. Thus, guidelines are available so that researchers can learn from past mistakes and make sure their instructions clearer.

Impersonal. Although surveys often were designed to be impersonal in the past, technological advances now enable researchers to send out personalized invitations to participate. Surveys can also be designed to incorporate some personal attributes of each potential participant. Furthermore, data can be linked to previously collected information for each participant. While these approaches can minimize this weakness of impersonal surveys, they may cause a problem with privacy.

Privacy issues. Vulnerabilities associated with privacy issues have increased. Now that researchers can collect enormous amounts of data and create detailed profiles of
individuals, people are more concerned about their privacy and the security of the information they share. Many people refuse to participate in surveys because of privacy concerns. For online researchers, it is crucial to have clear and well-articulated privacy policies. And researchers have to convince potential participants that the researchers will adhere to those privacy policies. Given the number of mergers and acquisitions, as well as bankruptcies, what happens to the data collected and owned by the firms involved? Laws are unclear about the privacy of data once it passes hands via a merger/acquisition and/or a bankruptcy/sale of a company.

Low response rates. Low response rates continue to be a concern. Based on a meta-analysis, Manfreda et al. (2008) found that the average response rate was 11 percent for online surveys and that the 95 percent confidence interval was 6–15 percent. That low rate has dropped even further since then. Many researchers have investigated the reasons for the low response rates and suggested ways to improve them. Some factors that affect response rates include survey length (Galesic and Bosnjak, 2009), content and wording of surveys (Hansen and Smith, 2012; Fazekas et al., 2014), personalization issues (Sauermann and Roach, 2013), invitation wording and reminders (Petrovic et al., 2016; Sauermann and Roach, 2013), incentives (Pedersen and Nielsen, 2016; Sauermann and Roach, 2013), researcher and sponsor identity (Pan et al., 2013) and the default settings in the survey (Jin, 2011).

Based on another meta-analysis, Fan and Yan (2010) concluded that online survey response rates are influenced by such factors as the sponsoring organization, survey topic, survey length, question wording, question order, question display (such as screen-by-screen or scrolling, backgrounds, logo display, graphics and progress display, navigational instructions and question format), sampling methods, contact delivery modes, pre-notification, design of invitation and incentives.

Research on online surveys
In this section, a number of topics regarding how online surveys have evolved since the 2005 article are addressed. Our greatest emphasis is on theory-based research and research on data quality.

Theory-based. There have been a number of articles on the theoretical underpinnings of good survey methods. In particular, what can be done to persuade respondents that the benefits of survey participation far outweigh the costs? And how can survey data quality be optimized? These are topics among others addressed by researchers. (In addition, several of the articles cited in the following sections are theoretical in nature):

- response behavior models (Grezski et al., 2015; Neslin et al., 2009; Rogelberg et al., 2006);
- total survey error paradigm (Biemer, 2010; Ha et al., 2015);
- theoretical assumptions about real and falsified data (Landrock and Menold, 2016);
- social psychology and online social networks/communities (Kugler, 2014; Li, 2011; Riedl et al., 2013);
- validity of different scales in online surveys (Revilla and Ochoa, 2015);
- insights about online data collection from academics teaching research methods courses (Killing and Firat, 2017);
- factors affecting self-disclosure on social media sites (Chen et al., 2015; Cheung, Lee and Chan, 2015; Cheung, Xio and Liu, 2015); and
- respondent conditioning with online panel surveys (Struminskaya, 2016).
Data quality. Related to the expanding theory-based literature for online surveys methods is the recent literature on data quality. These are some examples:

- validating customer profile data (Park et al., 2012);
- satisficing response behavior and data quality (Barge and Gehlbach, 2012);
- online consumer review credibility (Cheung et al., 2012);
- online conflict of interest disclosures (Jensen and Yetgin, 2017);
- methodologies for open-ended question analysis (Fielding et al., 2013; Holland and Christian, 2009; Scholz and Zuell, 2012);
- data quality and sampling techniques (Dutwin and Buskirk, 2017);
- carelessness in answering online surveys (Ward et al., 2017);
- completion rates for online surveys (Antoun et al., 2017; Liu and Wronski, 2017);
- effects of topic sensitivity on data quality (Roster et al., 2017); and
- data quality and the Internet of Things (Karkouch et al., 2016).

Survey formats. These are among the survey format topics that have been studied: respondent engagement (Downes-Le Guin et al., 2012); visualization effects (McDevitt, 2005); survey fatigue (Papachristos, 2014); trends in quantitative research methods (Henning, 2014; Pecáková, 2016); and survey delivery mode—such as face-to-face vs online surveys (Heerwegh, 2009; Revilla and Saris, 2013), telephone vs online surveys (Braunsberger et al., 2007; Herian and Tomkins, 2012; Xing and Handy, 2014; Yeager et al., 2011), mail vs online surveys (Deutskens et al., 2006) and panel vs online surveys (Schneider, 2015).

Panels. To improve the quality and representativeness of online survey responses, a number of researchers—both academic and non-academic—have turned more to consumer panels. One firm, SSI (2018), has a global panel with 11.5m members across more than 100 countries. As such, the literature in this area has grown a lot since 2005 and covers such aspects of panels as these: types of panels (Krajicek, 2015), recruiting online panels (Martinsson et al., 2017), why people join panels (Brüggen and Dholakia, 2010), topic interest and salience (Keusch, 2011), opt-in panels (Brown et al., 2012), early vs late panel respondents (Sharp et al., 2011), response styles (Menictas et al., 2011) and response metrics (Callegaro and Disogra, 2008).

Mobile surveys. Because of the worldwide increase in mobile device usage (see Deloitte, 2017), more survey research is now conducted through these devices. For example, according to Forrester Research (Statista, 2017b), well over 90 percent of US smartphone users access the internet from their phones at least once per week. As a result, there has been substantial research on mobile survey topics, such as: panel surveys via mobile devices (Revilla et al., 2008), the effect of survey formats and design (Antoun et al., 2017; De Bruijne and Wijnant, 2014), the choice of survey modes (Wells, 2015), assessing mobile surveys (Lynn and Kaminska, 2012; Okazaki, 2007) and extracting social behavior (Palaghias et al., 2016).

Hybrid surveys. With the advances in technology and survey research tools, some researchers have turned to hybrid/multimedia surveys to enhance the quality of survey responses. Consider this observation from iModerate (2018): “The companies that win are the ones that have a 360-degree view of their consumer and their competitors. There is no better way to get this view than to blend methods for a complete picture of your customers.” Research on hybrid surveys has involved such analyses as these: invitation modes and non-response rates (Maxi et al., 2010; Porter and Whitcomb, 2007), response modes and non-response rates (Millar and Dillman, 2011), combining quantity and quality measures (Mauceri, 2016), the use of open-ended questions (Altintzoglou et al., 2018) and mode effects on answers (Vannieuwenhuyze et al., 2010).
Social media. As Cheung et al. (2014) note: “The rise of social media has facilitated consumer social interactions. Consumers use online social platforms, including social networking sites, blogs, social shopping communities, and consumer review sites, to communicate opinions about products and exchange purchase experiences.” Thus, consumer attitudes and other valuable information can be gleaned from social media. (And later in the paper, it is discussed how survey research can entail utilizing social media.) These are among the aspects of social media research that have been studied: undertaking surveys at social media sites (Gregori and Baltar, 2011), critical mass and collective intention (Shen et al., 2013), the level of engagement (Abitbol and Lee, 2017; Wiese et al., 2017), friend recommendations (Shen et al., 2013) and microblogging (Li and Liu, 2017).

Big data. Today, people are inundated with information about big data and its transformational impact. For instance, Google can read, analyze and sort every digital volume in the US Library of Congress in one-tenth of a second; and data analysis that cost $1m in 2000, cost $10 in 2016 (Springer, 2017). But in the midst of the excitement about the possibilities of big data, realism is also required. As Clarke (2016, p. 77) observes:

The “big data” literature, academic as well as professional, has a very strong focus on opportunities. Far less attention has been paid to the threats that arise from repurposing data, consolidating data from multiple sources, applying analytical tools to the resulting collections, drawing inferences, and acting on them. [We] draw attention to the responsibility of researchers and professionals to temper their excitement and apply reality checks.

These are among the relevant research projects on big data: the evolution of big data techniques (Lee, 2017; Yaqoob et al., 2016), transformational issues (Baesens et al., 2016), social network analysis (Dabas, 2017) and big data SWOT analysis (Ahmadi et al., 2016).

Data analytics. The availability of big data does not add much to the knowledge base unless appropriate data analytics are performed well. This is not always the case. According to an Accenture (2017) global survey, weak personalization efforts cost companies $2.5tr worldwide in lost revenues annually. And that may be tied to poor use of big data. Important research in this area relates to: big data analytics challenges (Lee, 2017; Pouyanfar et al., 2018), big data reduction methods (Rehman et al. (2016), customer experiences on social media (Ting et al., 2017) and debunking myths (Gandomi and Haider, 2015; Kimble and Milolidakis, 2015).

Survey incentives. As survey response rates have fallen, the issue of incentives has become more hotly debated. The discussion typically focuses on the benefits of higher response rates vs the possible answer bias caused by incentives. SurveyMonkey (2018) says this about incentives:

Incentivizing surveys may seem like a no-brainer. But consider this: Your reward may be attracting the wrong kind of respondent. By offering everybody a reward to take your survey, it can encourage satisficers—people who misrepresent themselves or rush through surveys to the detriment of your survey results—just to collect a reward. However, incentivizing isn’t all bad. Offering survey rewards can help you encourage hard-to-reach audiences to take your survey. You can even offer indirect rewards to your respondents to benefit a third party, like a charity. Decide whether or not to incentivize your survey by carefully considering the circumstances.

The literature on incentives has covered such areas as these: types of incentives (Göritz and Luthe, 2013; LaRose and Tsai, 2014; Pedersen and Nielsen, 2016), incentive size (Hsu et al., 2017; Mercer et al., 2015), survey appeal (Walker and Cook, 2013) and panelist response motives (Smith et al., 2017).

Ethical issues. The use of online surveys poses special ethical challenges, even for well-intended researchers. Buchanan and Hvizdak (2009) did a study involving 750 US human research ethics boards: “Respondents indicated that the electronic and online nature of these survey data challenges traditional research ethics principles such as consent, risk,
privacy, anonymity, confidentiality, and autonomy, and adds new methodological complexities surrounding data storage, security, sampling, and survey design” (p. 37). It is interesting that some respondents believe that their privacy is being breached even if it is not. According to Sitecore, companies are less likely to collect customer data than their customers believe (eMarketer, 2017a). Other studies have dealt with ethics in the context of such topics as acceptable standards (Williams, 2012), social media research (Moreno et al., 2013), online communities (Pan et al., 2017), notice and consent (Liu, 2014) and the effects of fake online information (Burkhardt, 2017; Sirajudee et al., 2017).

False information from respondents. A mounting problem involves respondents who intentionally provide false information about their attitudes, behavior and/or demographics. There has been a lot of research on this, such as: predicting and detecting falsifications (Akbulut, 2015; Simmons et al., 2016), answering without really reading the survey (Anduiza and Galais, 2017; Jones et al., 2015), web surfing to find information about a study topic (Motta et al., 2017), differences in falsification by sample motives (Clifford and Jerit, 2016), justifications for false answers (Punj, 2017) and online reviews (Banerjee and Chua, 2017).

Computer literacy. This affects both the number of people with access to the internet (which influences study representativeness) and some people’s ability to properly complete an online survey. According to Techopedia (2018a), a computer-literate person is someone who has the “knowledge and skills to use a computer and other related technology.” OECD collected data during 2011–2015 from 33 countries, and published its results in 2016. It defined several levels of computer proficiency: “below level 1,” 14 percent of the adult population; “level 1,” 29 percent; “level 2,” 26 percent; “level 3,” only 5 percent; and no computer ability, 26 percent (Nielsen, 2016). Unfortunately, this issue has not had much attention in the literature. In one relevant study, Greenland and Kwansah-Aidoo (2012) examined the research challenges in Sub-Saharan Africa.

Business-to-business surveys. Companies do a lot of survey research with their supply chain partners as well as with their own employees. In some cases, online surveys are done via secure internet connections; other times, they are conducted through firms’ internal intranets. To date, there has been insufficient research on B2B online surveys. Here are some of the research projects that have been undertaken: B2B online communities and social media utilization (Gharib et al., 2017; Murphy and Sashi, 2018; Salo, 2017), online job applications (Morelli et al., 2014), user-generated cross-cultural media behavior (Thakur and AlSaleh, 2018) and B2B customer insights (Durr and Smith, 2017).

Online survey best practices
A wide variety of researchers have written about the best practices to use in building, implementing, analyzing and presenting the results of online surveys. Later in the paper, we offer our conclusions and recommendations. Because of the importance of this topic, the following list is for those who want to access online resources about best survey practices. These are resources from practitioner (non-academic) sources.

Selected resources as to online survey best practices:

Online survey firms

Online survey firms come in many types and sizes. There are traditional firms that began before online surveys were introduced. Many of them have added online surveys to their portfolio. An analogy can be made with the bricks-and-mortar retailers that expanded into bricks-and-clicks formats. Specialized online survey firms also now exist; they focus on digital research. These include Qualtrics and SurveyMonkey. In addition, there are more non-research firms that conduct surveys for their own use. Sometimes, they sell their findings to other companies. An example is Experian, the credit-monitoring firm.

Large traditional research firms that have branched into the digital arena dominate the industry worldwide. According to 2016 ESOMAR data (Statista, 2018b), the largest six market research firms—Nielsen, Kantar, Quintiles IMS, Gartner, Ipsos and GfK—accounted for 42 percent of all revenues attained by firms in the industry. Their dominance is due to the full-service approach they take. However, for smaller clients, other research companies are more utilized.

A look ahead

In looking to the future of research, especially online survey research, let us examine a number of relevant topics. The focus is on emerging online survey technologies and methodologies, and emerging non-survey techniques and methodologies. After that, we will present our own extensive conclusions and recommendations.

Emerging online survey technologies and methodologies

Even with the rapid growth of newer online survey techniques and methodologies, there will be further advances as tools evolve.
Qualitative studies. By using video chat features available on platforms such as Skype and Zoom, it is now possible to conduct online personal interviews without having to meet in person. These interviews can be recorded for later analysis in the traditional way as well as by using enhanced analytical tools (such as facial analysis and voice analysis). This method will save time and costs. Also, newer technology (such as Zoom) can enable participants to engage in online focus groups. Thus, focus group discussions can be held live without people having to meet—saving time and money. However, this approach may not allow the moderator to observe all nonverbal communications within the group. Focus group sessions can be recorded to analyze later. There have been studies related to online personal interviews using Skype (Deakin and Wakefield, 2014; Seitz, 2015; Hanna, 2012) and the use of online focus groups (Stewart and Shamdasani, 2017).

Crowdsourcing as a source of participants. Since the publication of the 2005 paper, a new method of data collection has gained acceptance—the use of crowdsourcing platforms to recruit participants and collect data for academic and practitioner research; and its popularity will grow further in the future as the tool is better understood. Investopedia (2018) states: “Crowdsourcing involves obtaining information or opinions from a large group of people who submit their data via the internet, social media, and smartphone apps. People involved in crowdsourcing sometimes work as paid freelancers, while others perform small tasks on a voluntary basis.”

In the past, most online surveys were done by seeking participants from traditional consumer panels, personal contacts or e-mail lists. Then, Amazon’s Mechanical Turk (MTurk—www.mturk.com) was established in 2005, with a platform to crowdsource participants in a more efficient and cost-effective way (Buhrmester et al., 2011). It is by far the most popular crowdsourcing platform used by academics and practitioners. A search in the Google Scholar database with the terms “Mechanical Turk” or “MTurk” produced nearly 15,000 article hits (as of mid-April 2018)—up about one-third from the total at the start of 2017. And a study (Goodman and Paolacci, 2017) found that between June 2012 and April 2016 nearly 27 percent of papers published in the Journal of Consumer Research relied on data collected online via MTurk.

Initially, Amazon set up MTurk marketplace so employers could post tasks/jobs; and workers could opt to complete the tasks for fixed monetary compensation pre-determined by the employer, with Amazon keeping a commission. Then, academic and practitioner researchers found this marketplace to be attractive, easily accessible and reasonably priced for them to recruit participants for their online studies. Although MTurk is the most popular platform, other crowdsourcing sites have emerged—even in such languages as Japanese (see https://crowdworks.jp).

The crowdsourcing of data collection using platforms like MTurk is driven by these advantages: global reach, potential sample size, ease of use, speed, low costs, participant diversity, flexibility in question formats, respondent interest and survey length. Some disadvantages are: sample self-selection, too much participant knowledge on certain topics, misrepresentations and the effect of platforms on study design. In addition, there are some unscrupulous users who only seek to be compensated. Despite these limitations, experts have devised guidelines and processes to help researchers minimize their effects. Goodman and Paolacci (2017) and Wessling et al. (2017) offer specific guidelines to deal with these limitations.

Omnichannel. There will more coordination of research efforts across the distribution channel (supply chain). According to BRP Consulting (2017), “Successfully delivering a seamless customer experience requires an approach that is enabled by unified commerce. This puts the customer experience first by leveraging real-time data, which is delivered by utilizing one common, centralized, real-time platform for all customer engagement points.” Thus, coordinated efforts to develop and analyze big data—whether obtained through
surveys or tracking—will expand (see Bradlow et al., 2017; Raphaeli et al., 2017) to include attitudes, intentions, the purchase process, purchase history and demographics. One stumbling block will be the reluctance of some firms in the distribution channel to share information with one another; because of the internet, manufacturers and other channel members are now more apt to compete with one another.

**Internet of Things.** Through the Internet of Things, more and more people—and firms—will be “always connected.” As a result, security/privacy will remain a concern (see Airehrour et al., 2016; Zarpelão et al., 2017). For survey researchers, the challenge will be how to utilize surveys to gather opinions and intentions regarding the use of connected devices. Good insights into the role of the Internet of Things in future research efforts are by Ng and Wakenshaw (2017), and Qin et al. (2016).

**Social media content analysis.** With the continuing boom in social media platforms, more researchers will engage in content analysis of people’s attitudes, intentions and feedback by visiting those platforms. This will be a major source of information for big data and data analytics. There is considerable research on this subject to help us better understand the possibilities of social media content analysis. For example, look at these studies: electronic word of mouth (Liu et al., 2016; Raassens and Haans, 2017), Facebook likes and fan pages (Chang and Fan, 2017; Hu et al., 2017), social tags (Nam et al., 2017), information from tweets (Soilen et al., 2017) and sentiment analysis (Ahmad et al., 2017; Bohlouli et al., 2015).

**Customer reviews.** With the eroding trust of some commercial sources, the number of people turning to customer reviews for company and product information will increase, due to their greater perceived honesty. Thus, researchers will increase their content analysis of reviews, just as with social media. The literature on this topic is quite extensive, on such aspects as these: why people post customer reviews (Cheng and Lee, 2012), the helpfulness and use of reviews (Singh et al., 2017; Zhang, Ding and Bian, 2017), sentiment analysis (Salehan and Kim, 2016) and the dark side of reviews (Liu and Karahanna, 2017; Zhang et al., 2014).

**Netnography.** According to an article by Kozinets (2002, p. 61):

Netnography is ethnography adapted to the study of online communities. As a method, netnography is faster, simpler, and less expensive than traditional ethnography and more naturalistic and unobtrusive than focus groups or interviews. It provides information on the symbolism, meanings, and consumption patterns of online consumer groups. Guidelines [should] acknowledge the online environment, respect the inherent flexibility and openness of ethnography, and provide rigor and ethics in the conduct of marketing research.

Only recently, due to the evolution of the internet and computer software, netnography has become a truly viable content analysis tool for the researcher. And it will be used more widely in the future. To learn about the current status of netnography, see Costello et al. (2017).

**Emerging non-survey technologies and methodologies**

Although the main focus of this paper is online surveys, it must also be noted that new technologies are being developed and deployed to carry out further types of data collection for research purposes. The discussion here covers how some of these technologies could be deployed. Note that the Future Today Institute (2017) has published a comprehensive overview of 158 different technology trends that are in process and that will influence future research efforts. It is available as a free download.

**Observational research.** Although survey research depends on people to directly or indirectly provide information through communications, observational research relies on noting behavior in natural and/or artificial settings. Observational research generally generates richer data because it does not rely on the subject to provide information. In many instances, surveys may be used as a supplement to observation (through hybrid research).
These are examples of how observational research is being done today—with a strong possibility of more extensive use in the future:

- to track online customer search and shopping (see Park, 2017);
- to monitor in-store behavior (see Sorensen et al., 2017);
- to track behavior through wearable devices (see Webster et al., 2017);
- to gather data from the use of mobile apps (see Han et al., 2016; Kim et al., 2017);
- to study locational data—of both people and devices—with GPS software (see Korpilo et al., 2017; Shoval and Ahas, 2017);
- to see how touchscreens influence behavior (see Zhu and Meyer, 2017);
- to collect data using Google Trends—which tracks Google Search terms (see Castelnuovo and Tran, 2017; Siliverstovs and Wochner, 2018; Stocking and Matsa, 2017); and
- to use advanced eye-tracking, facial recognition, neuroscience and other high-tech tools to gauge physiological reactions to stimuli (see Hsu, 2017; Losbichler and Michaels-Kim, 2017).

Other new technologies. There are other emerging technologies that will provide researchers with still more tools. They will offer opportunities for hybrid research, real-time results, large databases and in-depth insights. Below are a few examples:

- The number of sophisticated research labs will grow and operate in both the academic and non-academic arenas. These labs will combine state-of-the-art observational research with survey components.
- Now that voice-activated electronic digital assistants (such as Alexa) and voice-activated software (such as Siri) have been around for a few years, their research capabilities are coming into wider acceptance. They can track all sorts of activities and do sentiment and other types of content analysis. The databases are huge.
- Online conversation agents are computerized assistants that engage with customers through real-time, popup query boxes. For the most part, these agents have been used for customer service purposes to engage people in chats, answer questions, guide participants through problems and hold down costs. The consumer information stored with these agents has been under-utilized from a research perspective. Through content analysis, researchers will be able to determine the most prevalent consumer complaints, which products receive the most comments and so forth. Data analytics will benefit from such big data analysis.

Conclusions and recommendations about research in the future
After looking at the present and trending status of online surveys, we are now ready to discuss our own conclusions and recommendations about research in the future—with an emphasis on prescriptive guidelines for online surveys. We cover these aspects of research: better defining concepts, better understanding the future role of surveys, better developing and implementing surveys and adhering to a strong code of ethics. These topics are highlighted in Figure 2.

Better defining concepts
In particular, two areas need to be better clarified. First, in moving forward, the term “online research” should give way to “digital research.” Online research focuses on data collected
via the internet. However, this concept is becoming too narrow. Digital research encompasses online research—as well as any research conducted through connected devices, GPS software, company intranets, text messaging, Skype and other video services, bulletin boards, high-tech research labs and more.

Second, the concept of a “survey” is evolving. In the past, this involved asking questions of respondents through various formats. In a traditional survey, the researcher controls the questions and all other aspects of the methodology in data collection—sampling, question wording, answer typologies, etc. But now, researchers must determine whether a review of user-controlled comments can be considered as surveys. For example, if we systematically examine social media comments on a topic or firm, are we doing a survey? And if we systematically look at reviews at websites such as Amazon, are we doing a survey? Our response is yes; these are types of surveys. Here is why.

As per Business Dictionary (2018), a survey “gathers data on attitudes, impressions, opinions, satisfaction level, etc., by polling a section of the population.” Cambridge Dictionary (2018) notes that a survey is used “to ask people questions in order to find out about their opinions and behavior.” Finally, as to online surveys, Techopedia (2018b) states that:

Companies often use online surveys to gain a deeper understanding of their customers’ tastes and opinions. Online surveys can be used in two basic ways: To provide more data on customers,
including everything from basic demographic information (age, education level, and so on) to social data (causes, clubs, or activities the customer supports). To create a survey about a specific product, service, or brand in order to find out how consumers are reacting to it.

For us, the biggest difference between gathering data from traditional “surveys” vs newer formats, such as content analysis of social media comments and customer reviews at websites, is that the former involve direct communication based on researcher-generated surveys; and the latter entail indirect researcher–respondent communication whereby the researcher studies and compiles user-generated content. And then the researcher inputs, categorizes and analyzes the user-generated data. Attitudes, intent, behavior, etc., can all be examined via user-generated content. However, with user-generated information, there are issues regarding self-selected samples, the tendency for bipolar commentaries (yea sayer and nay sayer effects), the lack of demographic data and other methodological issues. On the other hand, information may be more “real” rather than hypothetical, comments do highlight attitudes and comments may better pinpoint opportunities and problems than researcher-generated data.

In sum, are not both traditional formats and user-generated content consistent with the premise of surveys—to gather data on “attitudes, impressions, opinions, satisfaction level, etc., by polling a section of the population”? If we answer yes, we must reconfigure the way we define “survey” to include the analysis of user-generated content. The latter can also contribute to the knowledge base in ways that traditional surveys cannot.

Here are some recent “real-life” applications of social media content analysis, as described in the literature. They show the vast future possibilities of content analysis: social media and smoking prevention in China (Jiang and Beaudoin, 2016), body imagery in fashion blogs (Kraus and Martins, 2017), health-related content at Reddit (Derksen et al., 2017), complaints on Twitter (Gunarathne et al., 2017), YouTube public service announcements for healthy eating (Zhang, Baker, Pember and Bissell, 2017), content at the PlayStation blog (Tichon and Mavin, 2017) and issues and challenges with online news portals (Ahmad and Buyong, 2017).

Better understanding the future role of surveys

Despite the current popularity of surveys, there are questions about the importance of surveys in looking to the future, including online surveys. How much formal survey-based research will we undertake in the evolving high-tech environment in effect now, which is expected to be even more dominant in the future? In the previous section the definition of “survey” was deconstructed to include other methods of obtaining consumer/people’s input or feedback on given topics.

The biggest threat to the survey method is the growing access to real, inexpensive, ongoing data through website analytics, tracking online behavior, monitoring the online stages in the purchase process, studying people’s actions via the Internet of Things and more. In looking ahead, what should be the major role of surveys, no matter their mode of delivery?

To us, the best synopsis on the future for surveys is by Miller (2017). As he notes in his abstract:

For decades, sample surveys have provided information of value to sponsors in government, academia, business, and the public. That value proposition is threatened now by declining survey participation and the advent of competition from alternative data sources. In this environment, some developments in survey practice include new thinking about how to recruit respondents, new methods for applying communication technology, and new approaches to blending survey and non-survey data. Going forward, survey data may increasingly be one component of information products, formed from various sources, including administrative records and unstructured (“big”) data (p. 205).
And he addresses the premise of blending data sources:

The future of surveys likely will involve more commingling of the data they produce with information from other sources. This trend will be propelled in part by the study of administrative records for policy analysis. The U.S. decennial Census has relied for decades on a combination of questionnaire self-reports and in-person non-response follow-up interviews to enumerate the population. These methods have become increasingly costly, leading to the examination of alternatives. Current plans for the 2020 Census involve using administrative data (e.g., tax filing information, health records) to reduce the nonresponse follow-up workload and enumerate some households without conducting interviews (p. 209).

Next, let us look at two additional valuable observations about the future of the survey method. These views are illustrative of what is being discussed in the current literature:

Sometimes, we as survey methodologists fall into the trap of thinking that surveys are the only possible tool. We also get caught up in building the perfect tool, and forget that the tools are not a goal in themselves, but are used for a purpose. Our job is to make better tools, to give the users a range of tools to use in their work, and to guide them in which tool is best for which job. The ultimate goal is to use the tools to make sense of the world around us and, in doing so, help to make a better world (Couper, 2013, p. 154).

A rising chorus is asserting that polls are passé. They claim public opinion, consumer behaviors, and other sociopolitical outcomes can be better measured (less expensively, more quickly, more easily) by the analysis of internet usage in general and of social media in particular, by the data mining of administrative databases (including the merging of disparate information sources through such techniques as data fusion), or by a combination of these alternatives to traditional surveys. The low cost of mined data is often touted in contrast to the high and rising cost of traditional survey research. Another attractive aspect of social media and other internet analysis is its speed. Others emphasize the ease of amassing internet data: that it can be compiled routinely, even automatically, and it can be more easily accessed (Smith, 2013, p. 219).

Finally, the future of survey research also depends on the researcher’s ability to generate informative, actionable big data. Many more firms will insist on this. Already, there is a developing literature base on this topic. Illustrations include: big data, brand marketing and social innovation (Calder et al., 2016), the risks of repurposing big data (Clarke, 2016), uses of big data in survey research (AAPOR Task Force, 2015), better customer data in real time (Macdonald et al., 2012) and bringing big data to life (Etheridge, 2016).

The following list shows our conclusions and recommendations as to the future role of survey research, based on a detailed review of the existing literature. Here are several of the sources that we consulted that offer insights on this topic: Bansal et al. (2017), Cooke and Buckley (2008), Couper (2017), Dillman (2015), GreenBook (2017), Kennedy et al. (2016), Link et al. (2014), National Science Foundation (2012), Pew Research Center (2018b), Statista (2017a, b), Stipp (2016) and Žák (2015).

Conclusions and recommendations as to the future role of survey research:

1. Academics and business professionals will have different uses for surveys. For academics, surveys will continue to be the leading research tool. They will utilize tools such as Qualtrics, SurveyMonkey and other researcher-controlled online surveys. On the other hand, because they have more access to high-tech research tools, business professionals will rely less on surveys.

2. In both academic and non-academic arenas, these will be the best uses for surveys:
   - To systematically study such factors as people’s attitudes, intentions and motivation. This is vital when researchers study why people have certain views and why they behave in a particular way.
   - To get in-depth responses for qualitative research.
To better control respondent selection and balance.
To do longitudinal opinion research with the same respondents through consumer panels.
To learn whether attitudes about the future prove to be correct.
To study special topics, such as consumer sentiment, feelings about specific brands, intended brand loyalty, feelings about the customer experience, job satisfaction and more.
To provide the inputs for informative, actionable big data.

(3) In both academic and non-academic arenas, there will be more use of tools such as online consumer panels and high-tech eye-tracking combined with surveys. In the non-academic arena, behavioral surveys will mostly be replaced by online tracking, Internet of Things tracking, simulations, etc.

(4) With regard to surveys:
- Hybrid research techniques will be more prevalent, such as tracking behavior through connected devices combined with online surveys on attitudes and intentions. Each tool must have a clear purpose. This will also allow more points of contact.
- Sampling issues will remain, with researchers more often deciding that random sampling is not feasible. Data collection must be done systematically whether the researcher controls the sample and methodology or the user controls the data and is part of a self-selected sample.
- Social media comments, reviewers and related sources of information must be better incorporated into survey research—and be considered a valued way of gaining insights not likely to be gathered in traditional surveys. But, the researcher must be careful in assessing the data, since they may not be representative and some comments may “planted” by unscrupulous parties. Also, the researcher needs to view discussions at online communities differently than those at more general social media sites.
- A major advantage of traditional online surveys is that questions, answer categories, sequencing, moving from one question to the next, etc., are structured. This will continue to make researcher-controlled surveys desirable.
- Response rates for online surveys must be increased for more representative results. The lack of internet access by some people must be considered when sampling. Quota sampling will be a must.
- To get better quality answers and less respondent abandonment during a survey, the survey length must be tightened up. It is unrealistic to assume that respondents will patiently answer surveys that take more than a few minutes to complete.
- The use of photos, videos, etc., may stimulate survey participants to complete surveys and to be more likely to participate again.
- As long as they are carefully compiled and analyzed, surveys can be an input for quantitative research.

(5) The growing popularity of mobile surveys should not be underestimated. These surveys must be formatted to best fit on a smaller screen and to easily answer questions. Tools such as Qualtrics do this.
Because many researchers want to study offline behavior, not just online behavior, surveys may be the only format to elicit this type of data. In this instance, the best mode of survey delivery must be set by the researcher. Thus, hybrid surveys with different possible points of contact may be desirable.

Many researchers will use “do-it-yourself” survey tools such as SurveyMonkey, with the attendant advantages and limitations.

Better developing and implementing surveys
An ongoing problem with survey research—especially online survey research—is the lack of consistency in survey methodology. There are no uniformly accepted guidelines. And this greatly contributes to the varying quality of surveys. “Quick and dirty” is not an acceptable way to conduct survey research if the goal is meaningful results.

As the American Association for Public Opinion Research (AAPOR) (2014) states:

Today’s practitioners and consumers of survey data are exposed to a wide array of methodologies, each with its own challenges. Many users of survey data are skeptical of contemporary survey methods, whether new, innovative approaches or more traditional ones. Innovators are taking advantage of the growth in new technologies, exploring new data sources, and experimenting with new methods. And while a well-designed and carefully executed survey still can deliver valid and reliable results, methods and details matter more than ever.

Furthermore, the full details of the methodology employed always need to be stated, so researchers can judge the validity of surveys conducted by others. The well-respected Pew Research Center (2017) is a good example of a source that provides methodology details:

The American Trends Panel, created by Pew Research Center, is a nationally representative panel of randomly selected U.S. adults who are recruited from landline and cellphone random-digit dial surveys. The panelists participate via monthly self-administered web surveys. Those panelists who do not have internet access are provided with a tablet and wireless internet connection. The panel is being managed by Abt Associates. Members of the panel were recruited from several large, national landline and cellphone random-digit dial surveys in English and Spanish. At the end of each survey, respondents were invited to join the panel.

The following list shows our conclusions and recommendations as to the methodology of future survey research, based on a detailed review of the literature. Our intent is to present an overall set of survey methodology principles—in sequential order—that apply to the majority of online surveys. Here are several of the sources we consulted on this topic: AAPOR (2018a, b), Baatard (2012), Cho et al. (2011), Constant Contact (2018), Courtright (2015), Fazekas et al. (2014), Galesic and Bosnjak (2009), IMRO (2015), National Science Foundation (2012, pp. 6-11), PeoplePulse (2011), Singh et al. (2009), Smyth et al. (2009), Sue and Ritter (2012), Vannette (2015) and Wouters et al. (2014).

Conclusions and recommendations as to the methodology of survey research:

1. Establish the purpose/goals of the survey before the methodology is formed. Purpose/goals give guidance as to the best survey methodology to deploy. Where possible, include testable hypotheses and methods based on sound theoretical foundations.

2. Set the type of survey (mode of delivery):
   - Traditional online survey (researcher-generated questions).
   - Non-traditional online survey (user-generated content).
   - Hybrid survey.
   - Intranet for employee survey.
(3) Decide upon the sampling method, with appropriate guidelines:
   - How respondents will be accessed/reached.
   - Random vs non-random sampling.
   - Opting-in vs opting-out.
   - Control of survey access so as to be available only to the chosen respondents.
   - Representativeness.
   - Utilization of panels.
   - Sample size and sampling error.
   - Non-response rates and attrition in panel membership.
   - Use of incentives to increase response rate.

(4) Determine who constructs the survey:
   - Do-it-yourself.
   - Professional survey firm.

(5) Disclose the true purpose of the survey and how data will be used (transparency). Note the survey author.

(6) Create questions and answer categories in a user-friendly and objective manner:
   - Are all instructions clear?
   - What information is requested?
     - Only asking questions that are necessary to fulfill survey goals.
     - Being sure respondents are capable of answering the questions asked.
     - Considering an opt-out policy for personal questions.
     - Including filters to include only serious respondents.
   - What is the best question format?
     - Multiple-choice, scales, ranking, open-ended, etc. (difficulty of inputting open-ended answers on mobile devices).
     - Mix of questions.
     - Question wording (avoid bias).
     - Jargon-free wording.
   - Should multimedia question features be utilized?
     - Photos.
     - Videos/animations.
   - How should questions be ordered?
     - Sequencing (logical order).
     - “Skip to” directions.
   - What are the proper answer categories?
     - Whether single or multiple answers should be chosen (or a mix of the two).
- Mutually exclusive answer choices.
- Answer ranges (such as “age 45–54” in a close-ended question) vs specific answers (such as “how old are you” in an open-ended question).
- Rotation of close-ended answers to minimize “yea sayer/nay sayer” effect.
- Not forcing responses (through a do not know or other choice).
- Careful coding and categorization of answers for open-ended questions.

(7) Devising surveys long enough to get the required information, but not so long as to affect response rates:
- Realistic survey length.
- Upfront information to the respondent about the expected time to complete the survey.

(8) Use an appealing survey design that encourages survey completion. Assure respondents of anonymity:
- Ease of navigation.
- Accessible layout and font size, with adaptation to screen size for mobile surveys (drop-down menus harder for respondents with mobile devices).
- Standardization of design across multiple surveys with the same respondents/panelists.
- Including a progress bar to indicate the percentage of survey completion.

(9) When possible, pre-test the survey to pinpoint any weaknesses that should be corrected.

(10) Determine who administers the survey, collects the collect information and analyzes the data:
- Researcher-controlled.
- Firm such as Qualtrics or SurveyMonkey.
- Other.

(11) Establish a time frame for all aspects of a survey research project, including data collection.

(12) After the survey, preserve the raw data in an electronic file to be able to verify results.

(13) Use data analytics appropriate for the given survey. And provide analysis based on study goals (and hypotheses, if utilized):
- Quantitative results.
- Qualitative results.

(14) In any publication arising from the survey, acknowledge study limitations and offer recommendations for further research. And maintain respondent confidentiality in reporting results.

(15) Act upon the findings. Do not conduct a survey that does not increase the knowledge base or does not lead to a change in an organization’s strategy or tactics.
Special considerations for non-traditional online surveys (user-generated content):
- As with other types of research, establish the purpose of the study (including hypotheses, if appropriate). The value of online surveys
• For each project, determine the specific content areas/topics to be examined.
• Carefully select the online source of information, such as reviews at Amazon or comments at a company Facebook page.
• Read a number of reviews and/or comments on the topic(s). Then set up questions upon which to focus (such as “On Twitter, what are tweeters saying about the prices of product x?” and “At Amazon, what are the main reasons for negative customer reviews about product x?”).
• Set a time frame for content to be included in the study (such as the last three months).
• Collect enough comments to provide a good cross-section of responses.
• Results can be treated qualitatively and/or quantitatively.
• Engage in longitudinal analysis to learn about shifting attitudes and intentions.
• Use other methods to obtain information about demographics and other personal data.
• Recognize both the advantages and limitations of this type of content analysis.
• Act upon the findings. Do not conduct research that does not increase the knowledge base or lead to a change in an organization’s strategy or tactics.

Abiding by a strong code of ethics
Earlier, it was noted that many respondents and potential respondents do not trust survey researchers. They think survey practices are unethical (and dishonest). To overcome this view, a strong code of ethics must be adhered to by both academic and non-academic survey practitioners.

Why is a survey research ethics code so important? According to Resnik (2015):

Ethics are norms for conduct that distinguish between acceptable and unacceptable behavior. They promote the aims of research, such as knowledge, truth, and error avoidance. They promote values essential for collaborative work, such as trust, accountability, mutual respect, and fairness. They mean researchers can be accountable for conflicts of interest, misconduct, and research with humans or animals. They ensure that the public can trust research quality and integrity.

To illustrate, the Pew Research Center (2018c) can again be cited for its ethical performance:

Independence, objectivity, accuracy, rigor, humility, transparency, and innovation are indispensable to the mission and success of Pew Research Center. To promote and preserve these values, the Center’s code of ethics includes the following topics: conflicts of interest, prohibitions on electioneering, and integrity of research.

It is also imperative that researchers comply with any new regulations related to privacy on the internet. And that may not be easy to do in the always evolving and complex digital world. For example, the European Union’s General Data Protection Regulation (GDPR) went into effect in May 2018. As reported by eMarketer (2018):

All multinational firms will have to comply with the General Data Protection Regulation, which governs consumer data collection, storage, and usage practices. But many companies remain unsure about what they need to do. The legislation, which is designed to give consumers in the EU more control over their personal data, lays out requirements and will impose potentially devastating fines on companies with poor data-handling practices or that experience data breaches in which they are found at fault. Regulations may be limited to the personal data of consumers residing in the EU, but they apply to any company handling, transmitting, or storing that data, whether it has a physical location in the EU or not.
The following list shows our conclusions and recommendations about having a strong code of survey research ethics, based on a detailed literature review. Our intent is to present a comprehensive set of ethical principles to adopt in conducting survey research and analyzing data. Here are several of the sources that were consulted for information on this topic: AAPOR (2015), Barchard and Williams (2008), Buchanan and Zimmer (2018), CASRO (2013), ESOMAR (2011), EphMRA (2018), Markham and Buchanan (2012), MRIA (2014) and Resnik (2015).

Conclusions and recommendations about abiding by a strong code of ethics:

1. Abiding by strong codes of ethics will help researchers gain greater trust among all constituencies.

2. All laws regarding privacy, data security, vulnerable groups, personally identifiable information, etc., must be followed. These laws may differ by country or state. (Global and European firms must understand and adapt to the EU’s stringent new GDPR).

3. The concept of ethics differs by culture and geographic region. However, this does not mean that survey practices widely known as unethical are ever acceptable.

4. The researcher should always commit to a high level of integrity, independence, objectivity and transparency—and be qualified to carry out a research project.

5. When respondents are asked to participate in a survey, that survey should not involve “sugging,” which is selling under the guise of research. Ads should not appear during the survey process.

6. The researcher’s identity should be clear. If there is a sponsor, that should be noted.

7. Special care should be taken with disguised surveys.

8. Survey participation should be voluntary:
   - Potential respondents should not be aggressively pursued to participate.
   - Respondents should only be asked about subjects for which they are competent to answer.
   - Respondents should be able to withdraw from answering survey questions at any point.

9. Respondents should be asked for their informed consent before completing a survey:
   - If tracking is to be done, this must be known and approved by the respondent.
   - If cookies are placed on respondent devices, they should be temporary in nature and used only for the specific survey undertaken.
   - Active agent technology and required software downloads must be used judiciously, and tied to informed consent.
   - Care should be taken in using vulnerable people as respondents.

10. Personal data should be securely collected and stored, and cookies used with care:
   - Individual responses should be treated confidentially. Personal identifiers should not be included in a survey’s database. Personally identifiable information should be kept separate from survey responses; and such data should be maintained by code numbers rather than be stored by name.
   - The https designation should be utilized with all online surveys.
If panels are used, respondents must be informed that data are stored and reviewed longitudinally, and given the opportunity to opt out of surveys and drop off the panel (for any reason).

Access to survey materials must be restricted, and identifiable information never sold to third parties.

Expected survey duration (completion time) should be fairly estimated and told to respondents upfront.

Both questions and answer choices should be presented in an objective manner to reduce bias:

- The researcher must weigh the trade-off between response rate and potential respondent bias due to incentives to participate.
- If incentives are given, they should be small in nature (and their use noted in reporting results).

The validity and value of survey results should not be overstated, especially as to the representative nature of the findings:

- Ethical standards must apply to both quantitative and qualitative surveys.
- Where possible, sampling should include those without access to the internet.
- Computer literacy may be an issue in surveys of respondents in less-developed countries.

The use of the proper statistical techniques must be tied to the quality and types of data collected.

In presenting survey results, analysis should be objective and based on the whole data set—and not distorted to misrepresent the findings.

When issuing press releases or otherwise publicizing results, methodologies should be detailed.

Clients should be treated in the same ethical manner as survey respondents—honestly and transparently.

Backup records should be maintained so as to verify findings.

References

Note: Lengthy URLs have been shortened using Google URL Shortener. If clicked, those URLs will open at the sites of the original URLs.


The value of online surveys


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