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Spies!

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ABSTRACT

This article comprises two distinct components. First is the delineation of a typology that encompasses the various approaches by which marketers can track the behavior of an individual in the marketplace. A total of 17 broad approaches were identified. Associated with each technique is the issue of whether personal information is being extracted via the tracking process, whether consumers' involvement is voluntary, and – if voluntary – what action was required on the part of the consumer. The 17 approaches are far from reflecting a homogeneous approach to the data gathering process. The second part of the study focused on two specific techniques: Shopkick and shopperception. But these techniques merely represent opposite ends of a continuum in that Shopkick is purely voluntary whereas shopperception is involuntary, and consumers are likely unaware that their behavior is being monitored. A sample of 307 respondents indicated reasons why each approach might be acceptable, and why each might not be. Comparing results from two independent samples, it was found that consumers consider Shopkick to be considerably more ethical than Shopperception. The implication is that surveillance techniques that are voluntary, transparent, rely on consumer involvement, and provide tangible benefits to the consumer are viewed as less invasive and more acceptable than are the more surreptitious alternatives for observing consumers in the marketplace.

INTRODUCTION

Spies! The very word evokes thoughts of surreptitious behavior designed to attain valuable information about another entity without their permission. Nathan Hale, Mata Hai, the Rosenbergs, Francis Gary Powers, Walt Disney. Wait! Walt Disney? Well, not Walt Disney himself, but Disney World has been accused of spying on its customers using bracelets that track their behavior and movement throughout the park (Hill, 2013). In a similar vein, the popular retailer Target has been criticized for contributing to a *surveillance society* (Zara, 2013). And the mega-retailer is far from alone. The world of marketing has long faced criticisms regarding observation procedures designed to glean important information about consumers, often without the consumers' permission, from a plethora of sources. The origins of this criticism are numerous. Politicians, the media, consumer watchdog groups, and the consumers themselves articulate and disseminate their concerns to a larger audience. Yet the observation tools available to today's marketers vary significantly. Consumers often give organizations unencumbered access to certain behaviors. The TV ratings companies like A.C. Nielsen have long used meters to electronically observe viewing behavior. Consumers who agreed to have their TV viewing behavior monitored were modestly compensated, and complaints about this

form of observation were virtually nonexistent. Then there are cases where permission to monitor certain behavior is granted, but the organization drills deeper and gains additional insight about the consumer without their knowledge or permission. Finally, there are situations where the consumers are completely unaware of the fact that their behavior is being observed.

In this day of the Internet and social media, every pulpit seems to have a congregation. Some of this observation is approved, so it is not typically characterized as spying, but other observation is more surreptitious with the victims unaware of the fact that someone is extracting important, perhaps personal, information by virtue of the fact that they are being watched – in some manner. This paper provides a list that delineates a number of observation techniques used by today's marketers. As such, a typology of approaches to observation is developed. It then looks at two specific technomarketing tools used to engage in a form of electronic surveillance: Shopkick and Shopperception. What is it about these two proprietary tools that might make them acceptable in the eyes of consumers? What do these same consumers see as unacceptable considerations regarding their use? Furthermore, how ethical is each of the two techniques according to these same consumers. Based on these results, the implications specific to observation as a means of extracting valuable information in the form of primary data about consumers are formulated.

LITERATURE REVIEW

Technological advancements have meant that surveillance, in a number of forms, has become more sophisticated, more ubiquitous and more invasive. This ever evolving technological environment has prompted outside observers to raise questions about how advanced spy techniques have directly impacted the consumers' loss of privacy. Indeed, the specter of George Orwell's *1984* has been raised as concerns about *big brother* and a failure to accommodate the interests of consumers are put forth by the critics of such technologies (Sletteameås, 2009; Mack, 2014a). Yet despite the increased use of tracking technology such as RFID, the corresponding loss of privacy, and these concerns being articulated by consumers and their advocates, it has been stated that there is "an outstanding lack of research on customer tracking" (Margulis, Boeck, Bendavid, and Durif, 2016, p. 83).

Before beginning the literature review for the technology-based observational techniques, let us begin with consideration of what constitutes an invasion of privacy. According to O'Malley and Prothero (2004, p. 1286), from a marketing perspective, an invasion of one's privacy occurs "when there is a loss of control resulting from marketing exchanges." To begin the look at this phenomenon, this review begins with a look at the quintessential study done by the father of marketing research, Charles Coolidge Parlin, when he was the advertising director of the Curtis Publishing Company almost 100 years ago – well before technology-based observation was born (Bartels, 1976). Looking for a better understanding of consumer behavior in regard to the purchase and consumption of Campbell's Soup, Parlin's team went out late at night and scoured Philadelphia residents' rubbish that had been placed on the street for collection – garbage collection, not data collection. *Garbology*, as it came to be known facilitated the determination of some specific information about consumers without their permission – even without their knowledge. And marketers have not stopped spying on consumers since. In more recent times, we think of the data collection procedures that required a spy to follow a shopper around in a

mall while recording the shopper's behavior and recording as best could be determined pertinent demographic data such as age, sex, race, and the size of the shopping party. Malls were but one type of venue where *personal observation* was the basis for data collection.

Marketing research textbooks have long included discussions about various observation techniques, and they generally addressed the issue of personal versus mechanical as well as direct versus indirect approaches. Mechanical observation is the essence of technology-based observation. One of the early mechanical modes of observation was the fundamental tool used by A.C. Nielsen in their assessment of the viewing habits of TV households in the United States. Their Audimeter was followed by the Peoplemeter; these so-called Set Meters mechanically recorded the times and channels to which each TV in a Nielsen sample household was tuned. Coupled with the demographic data that household members voluntarily provided, rich data were available to broadcasters and advertisers. Given the nature of the ongoing data collection process, this approach can be characterized as *voluntary real-time tracking*. This approach is similar to the next tool in many respects, albeit the data collection process is different in a meaningful way. Much like planes have data recorders known as black boxes, many of the automobiles produced today have similar devices. Among the data that might be attainable are driving habits, routes taken, services performed on the car, hard braking, fast acceleration, even if the driver and passengers are wearing their seat belts. Although the primary benefit is to the automotive industry and their B2B customers, other organizations might benefit as well. For example, law enforcement and insurance companies might use the data to help determine the cause of an accident. Rental car companies can verify dangerous actions; fleet operators can follow the movement of their vehicles. There are a plethora of uses in this regard. For a comprehensive overview of the potential uses, readers are encouraged to check out General Motors' two related sites: <https://www.gmcommercialink.com> and <https://developer.gm.com>. In some cases, drivers must be made aware of the tracking feature, but many drivers are unaware. In the case of a lack of awareness, then the procedure can be characterized as *involuntary real-time tracking*, but it is an observation technique that has most assuredly become more commonplace as we seek to gain more insight about consumers. Anecdotally, from a somewhat different perspective, it was reported that investment bankers at Barclay's in London discovered what was referred to as black boxes under their desks; the purpose was to track the amount of time they spent at their desks on any given workday (Morris, Griffin and Gower, 2017). Similarly, employers have the ability to monitor their employees' actions on their work computers during the work day (Heathfield, 2016). Were they working or surfing the Internet? What sites were they visiting? While these two examples may not reflect consumer tracking per se, they do provide insight about how tracking technology can be used by organizations seeking information on a particular segment of individuals. Later, we will see how marketers engage in similar tracking tactics with cell phones and other mobile devices. The difference is that the two preceding tools keep a record of your behavior, a record that is downloadable for entities that have a right to retrieve that information.

The next method to be addressed in this review is a proprietary product known in the trade as *Shopkick*. Large retailers such as Macy's and JC Penney use this form of electronic surveillance that, in order to operate, requires the consumer to activate the Shopkick app on their smart phone while in the store. As a result, the store can acknowledge the consumer's presence and send

them discounts or premiums such as free downloads of popular music for engaging in a number of specific actions such as trying on clothes or scanning a barcode (Flaherty, 2013). Of course, participation is voluntary, so there is little criticism about this technomarketing tactic. And of course, it can be argued the benefits secured by the customers trump any questions of the ethics of this mild form of surveillance. This group of consumers who voluntarily use this app have their own name, Shopkickers (Anonymous, 2017). This tool is similar to *proximity marketing* that relies on a smart phone app. Some sports teams have used this tool to reach out to fans. The iBeacon technology recognizes the fan's presence in the venue. The individual fan may then be sent a text welcoming the fan's party to the game. Furthermore, it might offer them seat upgrades at bargain prices or discounts on food, beverages, and souvenirs. They know the individual fan; they recognize the fan's presence; and they reach out to the fan with benefits via a text message on the same smart phone that alerted the organization to the fan's arrival at the sports venue. A similar proprietary product that is based on voluntary app-based tracking is Snapette. Again based upon a consumer's willingness to load an app on their mobile device, Snapette allows the consumer to gain access to information that they are seeking to help them with their shopping. But the tracking component is also important. In a form of proximity marketing, as you approach the vicinity of a store that wants to convey information to the consumer, a push notification is forwarded to the consumer's mobile device (Glassberg, 2012).

Also addressed in the aforementioned article by Flaherty (2013) is the second technique that will also be subjected to further scrutiny as this paper progresses to the primary data collection stage. Tracking that is not voluntary has become far more commonplace today. *Shopperception* uses motion-detection technology to determine a customer's movement and actions within a store. Where did the consumers go; where did they stop; did they pick up a product; did they set it back down on the shelf without purchasing it? By analyzing the individual's behavior, nearby digital signs that offer coupons and discounts can be displayed. So while your personal data remain a secret, your overt behavior helps the retailer deliver a message to the individual with the objective of inducing a sale.

An omnipresent method for tracking an individual consumer's Internet behavior is that of cookies. According to the Federal Trade Commission (FTC), "a cookie is information saved by your web browser. When you visit a website, the site may place a cookie on your web browser so it can recognize your device in the future. If you return to that site later on, it can read that cookie to remember you from your last visit and keep track of you over time" (Anonymous, 2016). If not turned off or otherwise deleted, the consumer's path to the different websites visited is very easy for marketers to trace. By knowing what sites have been visited, the marketer gets a feel of one's interest and can target each individual with customized messages – often pop-up ads with hot links that when clicked will take the consumer directly to an advertiser's website. So, cookies represent a form of *virtual tracking* that is typically deemed non-voluntary because consumers do not opt in, and they often find it difficult to opt out. Consequently, cookies are viewed by many to represent an invasion of their privacy

Some retailers employ sensors to track cellphone signals in order to determine traffic flow through the aisles of their stores. Again, information about an individual is not specifically gathered, but fundamentals of consumer behavior are ascertained. While the technology is

evident, this form of observation varies little in principle in comparison to times not so long ago when researchers personally monitored someone's actions within a retail environment. But it has raised questions regarding consumer privacy, thus it is included in the typology as *impersonal cellular tracking*. In a similar context, smart phones and a myriad of mobile devices have wireless Internet (WiFi) capabilities. Whether app-based or not, when enabled, the WiFi component allows a shopper's movement through a store to be tracked. However, with *WiFi tracking*, there is the potential for more personal information about the shopper to be gathered without their consent (Dato, 2014). Similarly, *ShopperTrak* relies on the Bluetooth signal to track a shopper's movement through the store. According to their own website, it is "people counting" that provides retail traffic analytics that help find solutions for problems germane to consumer movement throughout a brick-and-mortar store. And since no personally identifiable information is transmitted, and just an anonymous customer's movements are being determined, the parent company for ShopperTrak maintains that there is no breach of privacy (Dato, 2014).

More and more consumers use multiple mobile devices – their smartphone, their laptop, their tablet, etc. So the question may be raised as to the effectiveness of the tracking of an individual given that the consumer's device may differ from one occasion to the next. This dilemma has led to a blended tracking algorithm that is able to tie all of a consumer's devices to a single user. According to an article in *Fortune Magazine*, Drawbridge, the developer of the technology, has developed software that "can identify all of a person's devices and target them with ads more efficiently. This ability means that the marketer will know that a person uses this phone, this laptop, this connected TV, and so on. And while this may sound alarming, Drawbridge does not actually know the person's identity, just their set of online behaviors" (Kokalitcheva, 2015). Given the array of devices that all tie in to a single consumer, this tool is characterized as *blended tracking*.

Radio Frequency Identification (RFID) technology has assumed a significant role within the realm of market surveillance. In this regard, it has emerged as a marketing tool that can be used in numerous ways. One application is its use on shopping carts which allows for customers to be tracked as they move through the store. Another use for RFID technology involves embedded devices in products, on shelves, and at checkout points with the corresponding information providing benefits to the marketer such as more efficient inventory control, less shrinkage, and opportunities for more value-added sales. Interestingly, despite the various ethical issues that surround its different uses, researchers have largely neglected the consumers' concerns about RFID technology (Margulis et al., 2016; Martin and Murphy, 2017). The obvious term to apply to represent this form of consumer surveillance is *RFID tracking*. Other types of surveillance technology that can provide point-of-sale (POS) observation are recognition cameras that are placed in the eyes of mannequins with the express purpose of observing customer demographics as well as tracking an individual consumer's movement through a retail store. This type of *camera-based tracking* has as its primary objective that of boosting sales and profits (Inman and Nikolova, 2017; O'Mahoney, 2012). From a less personal perspective, but one also emphasizing camera-based tracking, a recent story in *Advertising Age* on mobility, or so-called proximity marketing, described a strategically placed camera along the Interstate Highway outside of Chicago. Using a car's grill as a benchmark, the associated software identifies the car as it proceeds towards its destination. Only a thousand feet later, an electronic billboard touts the

advantage of the Chevrolet Malibu over the driver's own identified car. Messages such as "Malibu has more safety features than your Hyundai Sonata" are posted in the face of the driver (Schultz 2016). An innovative way to implement comparison advertising has emerged based on new tracking technology. But questions regarding the potential perception that such an intrusion is an invasion of one's privacy are inevitably going to bubble to the surface.

As more consumers are avoiding brick-and-mortar stores in favor of virtual storefronts, they are familiar with the idea of placing items for which they have a buying interest in a *virtual shopping cart*. When done as a guest, no personal information is transferred (even though a cookie has likely been placed on the consumer's computer). But when done after signing in, then the virtual retailer has a plethora of personal information about the consumer, information that was voluntarily provided. Sometimes these purchases are consummated; other times the virtual shopping cart is abandoned. Completed purchases require personal information. This information can be used to create an individual profile. Marketers know who you are and what you like. Promotional efforts tied to that profile tend to be more effective, hence both parties potentially benefit. Non-completed purchases represent an opportunity. Follow-up promotions, even emails, may be used to encourage completion of the transaction. Retailers have even been known to gently nudge the reluctant consumer with an unanticipated discount. So there is the potential for benefit to the consumer, but is it tantamount to spying thereby representing an invasion of the consumer's right to privacy?

As part of a marketer's Customer Relationship Management (CRM) program that dominates today's retail environment, brick-and-mortar and virtual retailers alike have implemented loyalty programs. They offer benefits such as discounted prices on the products they sell as well as rebates, but only for members who have provided basic personal information when applying for their *loyalty card*, then using the card when completing a transaction. So the retailer knows who you are, where you live, your contact information, maybe even your birthday. They also know what you buy and how much money you spend. But for most consumers, relinquishing a bit of privacy by voluntarily providing personal information while facilitating a perpetual tracking of their purchase behavior is deemed to be acceptable. The benefit of customized promotions cannot be overlooked in this regard as this tactic creates a form of compensation that rewards customers for their willingness to share personal information (Lacey and Sneath, 2006). For instance, Kroger does not waste any resources sending coupons for dog food to a cat owner. In this regard, loyalty cards provide the foundation for one-to-one marketing. One common theme in the literature seems to be that benefits often trump the loss of privacy, at least to some extent. Perhaps nowhere is that philosophy more apparent than it is with loyalty cards.

Social networking sites (SNS) have become increasingly important to marketers over the past ten years. Pierson (2012) speaks of the shifting paradigm by referring to social networking as a form of "mass self-communication." For example, self-posted information on Facebook can be tagged for data mining (Mack, 2014b). Facebook and other social media can also facilitate consumer engagement by asking them to post "likes" and more verbal comments, even photos, about a marketer, often with some incentive associated with the consumer's action. But a key benefit for the marketer is the potential to secure personal data about the individual. So the consumer is involved, but may not be totally aware of the information that is being disclosed to the marketer

that is employing a *social media data mining* approach in order to gain insight about its customers and prospective customers.

In a similar vein, other stories in the popular press have documented the introduction of *smart shelves* at traditional brick-and-mortar retailers. These shelves use sensors that seek to identify a customer's sex and approximate age; this information is then used to tailor and display customized real-time advertisements (Boulton, 2013). Characterized by some critics as "spies," these smart shelves invite the question as to whether they are just good target marketing initiatives that stimulate unplanned, impulse purchases or if they represent an unacceptable invasion of one's privacy (Abel, 2013; Graham, 2013; Inman and Nikolova, 2017).

There is essentially no empirical research that looks at the two tactics that are the primary subjects of this research. Shopkick and Shopperception are proprietary products that represent two of the specific genres of tracking options available to marketers. But there is research that addresses the primary issues commonly articulated in the initial part of this literature review. The four points that seem to come to the forefront are privacy, transparency, benefits, and involvement. Since this paper addresses spying, the most relevant issues are those of privacy and transparency. Therefore, this component of the literature review will focus on the empirical studies that have emphasized these two issues. They are of course the essence of spying.

The roles of social media in marketing have been called into question. Of particular note is the use of personal data gleaned from websites such as Facebook and LinkedIn, including employers' extensive use of this type of data as a means of screening job applicants (Nathan, 2012; McFarland, 2012). While such methods potentially create a win-win scenario, they are far from being universally embraced, and questions of ethical breaches related to fairness and transparency have been put forth by the media (Gutierrez, 2012) as well as the academic literature (Spiekermann and Korunovska, 2017). One significant concern regarding social media raises questions about their characterization as voluntary. Too many consumers either fail to read or do not fully comprehend the consent agreements to which they agree when signing up on the various social media platforms (Wauters, Donoso, and Lievens, 2014). This lack of a complete understanding of what information the organization is allowed to collect may be viewed as an invasion of privacy thus leading to one's propensity to abandon their participation on the site. Thus, it has been stated that consumer disempowerment and vulnerability are increasing as consumers transition to these forms of mass self-communication (Pierson, 2012).

The preponderance of consumers owning a smart phone or other mobile device has resulted in the use of mobile apps as a tool for reaching and otherwise engaging consumers. Critics have questioned the ability of the typical consumer to comprehend how marketers use these mobile apps to gain insight for promotional purposes as well as to engage in customer relationship management initiatives (Anonymous, 2014). Nonetheless, mobile apps are assuming multiple roles for marketers today; these roles might involve some form of partnering as consumers continue to spend more time willingly exploring opportunities on their mobile devices (Dholakiya, 2014). Akin to the use of smart phone technology, numerous reports have indicated that a new technique for implementing proximity marketing is surging in popularity. Despite obvious privacy issues, by using smart phone apps and beacon technology, consumers can be

identified, pinpointed in a specific location, and sent a text message designed to alert them to a nearby purchasing opportunity. Once more, when done without the consumers' consent and/or awareness, the question of whether this action represents a breach of one's privacy is raised (Anonymous, 2016). Another example of surveillance-style technology is Radio Frequency Identification (RFID), which has emerged as a marketing tool that can be used in a number of ways. It was disconcerting enough that some 12 years ago, RFID was characterized as "the next serious threat to privacy" (Lockton and Rosenberg, 2005, p. 221). As noted earlier in this review, one application is its use for the involuntary tracking of a shopping cart – thus anonymous customers as they push their cart through the store. The involuntary nature of the surveillance, its non-transparency, and the absence of any tangible benefits being passed along to the shopper are issues that make this tactic subject to questions regarding its ethics.

Other surveillance technology provides point-of-sale (POS) information. Again, in spite of the privacy issues, it was earlier noted that some retailers have placed facial-recognition cameras in the eyes of mannequins with the express purpose of observing customer demographics and behavior with the overarching objective of boosting sales and profits (O'Mahoney, 2012). Such technology can perhaps more disconcertingly use a person's Facebook profile to facilitate data mining (Mack, 2014). In a similar vein, a number of stories in the popular press have provided insight regarding the introduction of so-called smart shelves. These shelves incorporate sensors that identify a customer's sex and approximate age; data that are then used to tailor and display customized real-time advertisements (Boulton, 2013). Characterized by some as 'spies', smart shelves invite the question as to whether they are just good targeting or an invasion of personal space, stimulating unplanned, impulse purchases (Abel, 2013; Graham, 2013). For many POS approaches to tracking or otherwise identifying some characteristics of the consumer, an accumulation of consumer benefits is implied, however, when Flaherty (2013) alerted consumers to the aforementioned tactic of Shopperception, privacy advocates complained. Loyalty programs most assuredly offer benefits, yet they are often targets for criticism by privacy advocates. Casinos often use loyalty programs – sometimes in the form of cards, sometimes in the form of a mobile app. But, some question whether the ability of marketers to use the data emanating from a loyalty program with the intent of identifying gambling addicts a good thing or not (Berzon and Maremont, 2013). One might argue that the answer to that question depends upon how the data are used. It should be evident that loyalty programs are not devoid of critics. While they offer a marketer with a robust source of behavioral data, they also capture personal information, details of past purchase behavior, and consumer preferences. But since its use is voluntary on the consumers' part, it does not correspond to O'Malley and Prothero's (2004) definition of an invasion of the loyalty card user's privacy. However, there is increased concern as to how the information is being collected and disseminated (Zabin and Brebach, 2004).

The delineation of the literature concludes with perhaps the most compelling statement regarding concerns and abuses germane to market surveillance. And surprisingly, this statement was made some 16 years ago. According to American journalist, Howard Rheingold, today's technology and its "new vistas of cooperation...make(s) possible a universal surveillance economy and empower(s) the bloodthirsty as well as the altruistic" (Rheingold, 2002, p. xviii). Perhaps not as disparaging as the statement by Rheingold, the literature clearly documents genuine concerns regarding privacy. It appears that these concerns can be mitigated as long as there is

transparency, if there are benefits accruing to the consumer, and if it is voluntary. In the absence of these three properties, consumers and their advocates are likely to voice their concern and criticism. Marketers' reputations are likely to be tarnished. The literature leads to a research proposition that will be evaluated with the look at the primary data. Namely:

Research Proposition: *The ethical nature of a voluntary, transparent form of observation that provides the targeted consumer with benefits (in this case, Shopkick) will be viewed more favorably than will the ethical nature of a non-voluntary, non-transparent form of observation where few benefits accrue directly to the targeted consumer (in this case, Shopperception).*

RESEARCH OBJECTIVES

The initial objective of this study focuses on the secondary data. It is predicated upon the determination of the various methods that have been used to engage in some form of market surveillance. In this regard, the initial objective is to develop a typology for the documented approaches for this type of observation. Then the focus shifts to the primary data. The three objectives germane to the primary data collected for this study are straight-forward. Those data capture the consumers' opinions regarding two specific proprietary tools used for observation: Shopperception and Shopkick. First is the determination of why each of these procedures might be deemed acceptable by consumers. Second is the determination of what might lead consumers to believe that each of these techniques represents an unacceptable business tactic. Finally, the issue of ethics as perceived by the individual respondent is assessed with the third objective associated with the primary data. Specifically stated, it is the determination of the level of ethics attributed to each of the two actions under scrutiny. The answer to this final question provides a resolution to the single research proposition emanating from the literature review.

METHODOLOGY

A data collection instrument was devised by the lead author of this study. Then the surveys were distributed via two approaches. First, the survey was the final extra credit exercise that students had the opportunity to complete at the end of the semester in an undergraduate marketing principles course. The response rate was quite high. Second, students were asked to take copies of the survey and have friends or relatives over the age of 30 complete them. No extra credit was provided, so there was no incentive to turn in falsely completed surveys. The benefit was that students were able to see research and participate in an actual study where they would be privy to the results. It also helped by providing a more demographically diverse sample.

The survey began by requiring the potential respondent to read the aforementioned short, broadly-distributed, syndicated newspaper article by Anne Flaherty (2013). The article identified a number of tracking tools used by marketers. Upon completing that article, they were required to select either Shopkick or Shopperception for a short series of questions. These two tools were selected because Shopkick is very transparent, totally voluntary, and is totally dependent upon consumer involvement. Conversely, Shopperception is unbeknownst to the targeted consumer, involuntary, and totally independent of the need to have the consumer actively participate. After making their selection, respondents answered an open-ended question

that asked them to list three reasons why the observation technique they selected might be deemed acceptable to consumers. The second open-ended question reversed the logic and asked the respondent to list three reasons why that same technique might be deemed unacceptable. The final question was a balanced, forced, six-point itemized rating scale that sought the respondents' opinion regarding the ethics of their chosen observation technique. Each point on the scale was described with the polar points reflecting "totally ethical - I have no problem with it" (1) and "absolutely unethical – I have a problem with this action; it should not be used" (6).

The open-ended questions were coded using a dichotomous outcome; the respondent either indicated a particular reason or not. There was an interpretation of intent required in some cases in the task of determining the reason stated by the respondent. When there was uncertainty regarding the stated reason, the coder sought input from a second coder. This collaboration for the few cases where it was necessary resolved each of the questions regarding how to code a particular response. The final question regarding the perceived level of ethics associated with each technique was simply coded with a one through six representing the level of ethicality or unethicality associated with their selected technique. There were no missing data. Means were calculated; then a t-test based on two independent samples was used to determine whether or not there was a statistically significant difference in the respondents' aggregate perceptions of the two approaches for observing a consumer's behavior.

RESULTS

The initial focus of this study was the delineation of a typology of observational techniques used by many marketers today. This objective was accomplished by virtue of the in-depth literature review that represented the starting point for the current study. A total of 17 observation techniques were documented. The list is not mutually exclusive, for example proximity marketing may depend upon camera-based tracking or voluntary retail tracking in order to effectively reach a targeted customer. And it may well not be collectively exhaustive. Along with the terminology, the question of whether the targeted consumer has any active role in the observational process – other than simply being a subject – is indicated. An overview of the techniques identified in the literature review is provided in Table 1.

With the typology component of this paper completed, the focus now shifts to the objectives associated with the primary data, namely the determination of consumer attitudes about two particular observation tools: Shopkick and Shopperception. The net result was a usable sample of 307 that comprised 135 students and 172 non-students. Of the 307 respondents, 184 selected Shopkick while the remaining 123 selected Shopperception. These numbers do not include the four surveys that were discarded due to incomplete information.

These two techniques were selected because one (Shopkick) is voluntary, is transparent, relies on consumer involvement, and delivers benefits such as price reductions to the individual being tracked. Conversely, Shopperception is non-voluntary, not transparent, does not rely on involvement on the part of the subject, and it is not typically perceived as delivering any meaningful benefits to the consumer. Specifically, from the consumers' perspective, what might lead to the belief that each technique is acceptable? Conversely, what issues come to the forefront when the question shifts to reasons why the technique might be deemed unacceptable

from the eyes of the typical consumer? Finally, from an ethical perspective, where does each technique fall on a six-point itemized rating scale? As stated in the Research Proposition at the end of the Literature Review, it is anticipated that attitudes regarding these two tools will differ. Each approach will be looked at separately, so this examination begins with a look at Shopkick.

Table 1
A Typology of 17 Observational Tools Documented in the Literature

Technique	Personal Information	Voluntary	Involvement
Garbology	Potentially	No	None
Personal Observation	Yes, Demographics	No	None
Voluntary Real-time Tracking	Yes	Yes	Agree
Involuntary Real-time Tracking	Potentially	No	None
Shopkick	Yes	Yes	Mobile App
Proximity Marketing	Yes	Yes	Mobile App
Shopperception	No	No	None
Virtual Tracking (cookies)	Potentially	No	None
Wifi Tracking	Potentially	No	Wifi Enabled
ShopperTrak	No	No	Bluetooth Enabled
Blended Tracking	Potentially	No	None Required
Impersonal Cellular Tracking	No	No	None
RFID Tracking	No	No	None
Camera-based Tracking	No	No	None
Virtual Shopping Carts	Depends	Yes	Placing Items in Cart
Loyalty Cards	Yes	Yes	Register, Activate
Social Media Data Mining	Yes	Indirectly	Public Posts
Smart Shelves	Yes, Demographics	No	None

In general, the opinion of Shopkick appears to be quite favorable. Only 5.97 percent of the respondents placed it on the unethical side of the scale. Furthermore, all but one of those respondents who placed it on the unethical side of the scale considered it to be only “marginally unethical” with none placing it in the sixth category of “absolutely unethical.” At the top of the scale, over 50 percent of the respondents deemed Shopkick to be either totally ethical or ethical (a 1 or 2 response). In addition to the favorable results indicated by the frequency distribution, the mean response was 2.337. This value falls well below the midpoint of 3.5 on the six-point scale. Thus it may be concluded that the respondents generally accept Shopkick as a means of gathering marketing intelligence. However, that view is not universal. An overview of the results of the sample’s assessment of the Shopkick technique is presented in Table 2.

Table 2
Review of Results Regarding the Ethicality of Shopkick

Response	#	%
1 – Totally Ethical – No problem with it	30	16.30
2 – Ethical	74	40.22
3 – Marginally Ethical, but borders on unacceptable	69	37.50
4 – Marginally Unethical, seems controversial; I have concern	10	5.43
5 – Unethical	1	0.54
6 – Absolutely Unethical, Major problem with it; should not use	0	0.00

SCALE MEAN = 2.337; Standard Deviation = 0.833

Respondents were asked to provide three reasons why Shopkick might be deemed acceptable for use in the marketplace. Over 40 reasons were noted, but many of these reasons were indicated by only one or two of the respondents. With over 60 percent of the respondents noting it, the rewards/benefits accruing to the customer was by far the most commonly articulated reason supporting Shopkick’s use. Second on the list at just under 37 percent was the ease of its use. Next at 27.7 percent was the voluntary aspect of the program. The top three reasons all address customer-based considerations; however, many respondents listed benefits gained by the marketer. Issues such as better consumer information, attracting consumers to their stores, and creating customer loyalty were all listed by more than five percent of the respondents. Table 3 provides an overview of the top 12 reasons why Shopkick was viewed as acceptable. Recall that consumers listed three reasons, so the aggregate percentage of the responses is 300 percent.

Table 3
Reasons Why Shopkick Is Deemed Acceptable

Reason	#	% Listing this Reason
Rewards/Benefits	112	60.9
Easy to Use	68	37.0
Voluntary	51	27.7
Attracts Customers to Store	43	23.4
Valuable Information for the Marketer	41	22.4
Convenient Coupons for the Consumer	41	22.3
Valuable Information for the Consumer	37	20.1
Good Match between Consumer & Product	26	14.1
At Stores Consumers Like	14	7.6
Fun	12	6.5
Transparent	11	6.0
Creates Loyalty	11	6.0

Next, consumers were asked to list three reasons why Shopkick might be considered unacceptable to consumers. Again, over 40 reasons were indicated, but most had a very limited number of respondents designating those reasons. Far and away the greatest concern revolved

around the invasion of one’s privacy. Fully 42.4 percent of the respondents indicated this concern. Other issues were tied to the privacy concern as well. For example, second on the list at 26.1 percent was the concern that a customer’s location was tracked when the app was active. Third was the belief that consumers might view the Shopkick methodology to be coercive with 17.9 percent of the respondents indicating their belief that it might induce purchases that the consumer regrets and would have preferred not making. Table 4 summarizes the results for the 12 most frequently stated reasons for the respondents’ disapproval of Shopkick.

Table 4
Reasons Why Shopkick Is Deemed Unacceptable

Reason	#	% Listing this Reason
Concerns about Breaches of Privacy	78	42.4
Pinpoints Customers’ Location	48	26.1
Perceived as Coercive	33	17.9
Too Much Personal Information Required	28	15.2
Requires Smart Phone/Device	27	14.7
Tracks Consumers’ Purchases	26	14.1
Uses Data/Battery of Consumers’ Phones	23	12.5
Intrusive	23	12.5
Too Much Clutter	16	8.7
Difficult to Use	16	8.7
Price Discrimination	14	7.6
Malfunction	14	7.6

When the focus shifts to Shopperception, the results indicate that consumers tend to exhibit a less positive perspective. Despite this, 70.73 percent of the respondents associated some positive level of ethics with the practice. However, the majority of these accepting consumers indicated that the technique was only marginally ethical (3). The next most frequent response was that Shopperception was marginally unethical (4) with fully 26.02 percent of the respondents indicating this modest level of disapproval. At the extremes, 13.01 percent indicated that it was totally ethical and that they had no problem with it (1) while only 3.25 percent indicated their belief that it was totally unethical, that they had a problem with it, and that it should not be used (6).

The mean response of 2.927 still fell inside of the scale’s midpoint of 3.5 thereby denoting an aggregate perception that the technique was ethical, but certainly not without questions or doubters. The concern is evident given that 29.27 percent of the respondents placed Shopperception on the unethical side of the scale. Table 5 provides an overview of the results for the assessment of consumer opinions regarding Shopperception.

Table 5
Review of Results Regarding the Ethicality of Shopperception

Response	#	%
1 – Totally Ethical – No problem with it	16	13.01
2 – Ethical	21	17.07
3 – Marginally Ethical, but borders on unacceptable	50	40.65
4 – Marginally Unethical, seems controversial; I have concern	32	26.02
5 – Unethical	0	0.00
6 – Absolutely Unethical, Major problem with it; should not use	4	3.25

SCALE MEAN = 2.927; Standard Deviation = 1.118

As with Shopkick, the respondents were asked to list three reasons why Shopperception might be considered an acceptable tool for retailers to use. Of note is the fact that respondents listed about 25 reasons supporting its use. Furthermore, the reasons were divided between what was good for the consumer and what was good for the marketer. In fact, at 58.54 percent, making it the number one supporting reason was that Shopperception provided important real-time information to the marketer. But this is followed on the list by a benefit for the consumer. Fully 39.02 percent answered with their perspective that pertinent signage and coupons were made available on a time-sensitive basis. Third on the list was the belief that the technique is not personal in that any personal information such as demographic data and any images extracted during the data collection process are **not** stored for future reference. Point four represents a mutually beneficial consideration. By having a better fit, the information received by the shopper is relevant to their purchase decisions. By providing more relevant information, this procedure should be more effective in the task of inducing the shopper to make a purchase. Along these same lines of thinking, the fifth benefit on the list relates to product specificity. Consumers are led to specific products and are privy to pertinent information about those products, even new products, based on the monitoring of their behavior while in the store. This fact leads to the sixth benefit on the list; that is the belief that Shopperception, because of its ability to incent customers, will drive traffic and sales. When reviewing the results shown in Table 6, it is important to recall that respondents were asked to list three reasons in support of the use of Shopperception as a research tool. Therefore, the percentages shown indicate the number of respondents who included each reason as one of their three. If the entire list was provided, the aggregate percentage would be 300. However, the remaining 15 reasons not delineated in Table 6 exhibited low frequencies of response, thus low percentages. For example, several of the reasons – such as versatility and making shopping more fun – received only one or two mentions.

Table 6
Reasons Why Shopperception Is Deemed Acceptable

Reason	#	% Listing this Reason
Good Real-time Information for Marketer	72	58.54
Pertinent Time-sensitive Coupons/Signage	48	39.02
Not Personal/Images Not Saved	37	30.08
Less Intrusive	36	29.27
Better Fit – Information to Shopper	32	26.02
Product Specificity	28	22.76
Increase Sales & Traffic	17	13.82
Easier Shopping	10	8.13
Accuracy of Data	9	7.32
Anonymous – No Identification of Shopper	9	7.32

The focus now shifts to concerns about Shopperception. More specifically, respondents were asked to indicate three reasons why people might oppose its use as a research tool. Over thirty different reasons were offered in opposition to Shopperception. The top four reasons were closely bunched, and they represent much of what the research proposition addressed. Table 7 summarizes the aggregate results for why people might oppose Shopperception's use.

Table 7
Reasons Why Shopperception Is Deemed Unacceptable

Reason	#	% Listing this Reason
It is Intrusive/Invasive	50	40.65
Privacy Is Violated	49	39.84
It Is Not Voluntary	44	35.77
It Tracks Individual Movement in Store	39	31.70
It is Coercive	25	20.33
Inaccuracy of the Data	13	10.57
Transparency – Unaware of Being Target	12	9.76
Concern about Store Selling Information	11	8.94
Price Discrimination	11	8.94
Annoying	10	8.13

A close look at Table 7 identifies a bit of a paradox. The intrusive nature of the tool is first on the list at 40.65 percent while the violation of one's privacy is second at 39.84 percent. Is the intrusion what creates an invasion of one's privacy? Are these two reflecting the same phenomenon? It is essentially a reflection of the terminology denoted by the respondents. So if we treat them as a single phenomenon, fully 80.49 percent of the respondents indicated that the invasion of one's privacy using intrusive technology is a reason to oppose the ability for retailers to use the Shopperception. In comparison to Shopkick which is voluntary, it is noteworthy that almost 36 percent of the respondents stated that the involuntary participation as a target was a

negative consideration for Shopperception. And being involuntarily tracked as one moves through the store is yet another reason to oppose its use. Fifth on the list is the coercive nature of the tool. Respondents indicated a belief that the marketing initiatives directed towards an individual consumer might lead to unplanned impulse purchases of products for which they really have no need.

This brings us to the single research proposition put forth in this paper. It posited that the attitudes regarding Shopkick would be more favorable than those for Shopperception. An anecdotal review of the reasons for opposing the two techniques (See Tables 5 and 7) seems to support this proposition as criticism of Shopperception is strongly focused on the issues of privacy, awareness, and the involuntary nature of the tool. A cursory look at the two sample means appears to further support this premise. But to fully assess this proposition, empirical evidence is required. Therefore, the results were subjected to a t-test for independent samples. With a difference of 0.590 between the sample means, a resultant t-score of 5.293 with 305 degrees of freedom, and a corresponding probability of less than .0001, the hypothesis of equal means can be rejected. Given Shopkick's lower mean, and with lower scale values representing a more favorable response, it can be concluded that the two approaches are viewed differently from an ethical perspective and that Shopkick is viewed significantly more favorably than is Shopperception. The results of the t-test are summarized in Table 8.

Table 8
Results of t-test

Initiative	Mean	std. dev.	Difference	t-value	prob.
Shopkick	2.337	0.833			
Shopperception	2.927	1.117	0.590	5.293	<.0001

DISCUSSION

Marketers continue to stress the need to engage in environmental scanning as a way of understanding the obstacles and opportunities presented by the uncontrollable environment. One of the uncontrollable variables is the political environment. When public outcry is vociferous enough, lawmakers often step in with the intent of protecting their constituents. A second uncontrollable variable is technology. Marketers continue to find innovations that might help them achieve their objectives or, in other cases, make it more difficult to accomplish their goals. A third component of an environmental scan comprises the social considerations of the marketplace. How open are people to specific activities? Market surveillance treads lightly on each of these three dimensions. Consumer protection laws regarding privacy, new technology that makes market surveillance easier and more effective, and consumers' willingness to relinquish some aspect of their privacy when adequate benefits are provided must be taken into account. These are issues that marketers in 2018 and beyond will need to consider as they formulate their own marketing plans.

The literature review identifies a plethora of observation techniques. Some, such as garbology, may be a bit archaic, but others such as proximity marketing are at the forefront of applications

using new technology. The resultant typology which lists 17 approaches for gathering data about one's customers without asking them to complete a survey is comprehensive, but it is not likely to be collectively exhaustive. Additional research is needed to help refine the list. It might even be that Shopkick and Shopperception should not be included on the list as unique categories since they may well fit within one of the other designated categories of surveillance techniques. Also concerning the list, the terminology is based on the opinions of the study's two authors. While every effort was made to create a logical descriptor for each technique, the terminology might be improved. Future research should also consider this opportunity as efforts are made to augment and refine the list of observation tools.

As for technology-based observation, there are points that marketers need to take into account when considering their use. Foremost is the need to be customer-centric. What is in it for the customer? While consumers are open to the idea of the marketer benefitting by virtue of the acquisition of relevant information, there needs to be a benefit that is clearly apparent to the consumer. The concept of mutual benefit is the foundation for customer relationship management, thus it is tremendously important for the marketer who is seeking a long-term relationship to articulate any potential benefits to the consumers. It is the resulting long-term commitment that allows the marketer to take full advantage of the lifetime customer value that each customer presents. Transparency is also important. Given the number of consumer protection groups, at some point in time, customers will become aware of any surveillance that is taking place. Consumers who were aware of it and who had volunteered to be watched will likely shrug their shoulders as if to say "So what!" On the other hand, the unaware customers are likely to feel abused, a feeling that often leads to the premature termination of a relationship. By focusing on consumer benefits and transparency, the marketer may well head off any consumer backlash and be able to retain its customers over an extended period of time.

When attention is redirected towards the negative aspects of technology-based observation, there is no doubt that privacy is the primary concern. A number of respondents actually used the word "creepy" as a way of expressing their displeasure with electronic observation. Even when it is voluntary, some critics still express their belief that this technology is overly intrusive, especially when personal information is involved. If neither voluntary nor transparent, then criticism will be forthcoming. A second key issue is that of being coercive. Customized promotions and discounts may lead the consumer to feel that they were forced into a particular purchase. Marketers know that this feeling likely leads to postpurchase cognitive dissonance. This buyer's remorse will lead to negative word-of-mouth as well as significant returns of purchased items. Neither of these outcomes is good for the marketer. Further exacerbating the problem is that some individuals who did not receive the promotional message may believe they are victims of price discrimination. By selecting some customers to receive a benefit while not selecting others, some resentment may be felt by the deprived customers, even if they were not purchasing a featured product for which a discount was given. So in an ideal world, the surveillance should be transparent and voluntary.

Some respondents noted their concern as to the ethics, or even the legality, of these tools. We know that vocalization of these concerns often leads to legal intervention, a reality that would

make the acquisition of consumer data more difficult. So care should be taken when implementing these forms of technology-based observation so as to avoid legal intervention.

So far as the two specific tools under scrutiny are concerned, Shopkick was deemed to be far more ethical than was Shopperception. This finding was exactly as had been predicted based upon the literature review. Again, it is important to note that it was not the two proprietary techniques that were the primary emphasis of this study. Rather it was the underlying fundamental properties upon which each of the two techniques is predicated. There are myriad reasons why Shopkick might have been viewed more favorably. As noted in Table 1, Shopkick is transparent and requires consumer involvement. Consumers are aware that some aspect of their movement is being tracked; it is not cloaked in secrecy. It is this awareness that has been shown to be one of the most important factors leading to a consumer's willingness to share information via one of the various observational tools (Spiekermann and Korunovska, 2017). Also important in this scenario is the potential for tangible benefits to be transferred to the involved consumer. As research tends to show, when these factors are present, consumers seem to be more willing to forsake some degree of privacy. Marketers need to keep this reality in mind as they develop their marketing strategy. But even when there is an awareness of the surveillance, the reality is that consumers may not know the full extent of the information being gleaned by the marketer. This partial awareness creates the possibility of a backlash when the consumer feels that privacy has been breached, even when permission to gather information has been granted. Perhaps the best example of this phenomenon is the loyalty card. Do consumers fully understand how much personal information is being "voluntarily" passed along to the marketer? The dilemma for marketers is that once consumers believe that they have been deprived control over what information is gathered by the marketer, then there is a greater likelihood that they will discontinue their participation (Spiekermann and Korunovska, 2017). So transparency again comes to the forefront if the intent is to maintain a long-term relationship with each individual consumer.

CONCLUSIONS

According to Jeff Chester, the executive director for the Center for Digital Democracy: "You can't have Christmas anymore without big data and marketers" (Flaherty, 2013, p. 3C). And market surveillance is one way by which marketers can acquire big data. Marketing research, thus the acquisition of information regarding consumer behavior, has long been a fundamental component of most marketers' tool bags. But we have moved a long way from C. C. Parlin's observation of Philadelphia consumers' garbage, a technique long referred to as garbology, to the technomarketing components that comprise a significant part of the tools in today's marketing research toolbox.

It is evident that research on technology-based observation has been slow to develop, but it is beginning to become more commonplace. There are numerous ways in which consumer privacy might be breached, yet there are numerous initiatives whereby the consumer voluntarily relinquishes some privacy rights so as to reap the benefits offered by the marketer. So while the current research represents a meaningful effort to develop a richer understanding of issues such

as transparency, surveillance tools, and privacy, it has not reached a terminal point. As recently stated, research in these areas “remains critical and needed” (Martin and Murphy, 2017).

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