

# Online Advertising Intrusiveness and Consumers' Avoidance Behaviors

Francisco Rejón-Guardia and Francisco J. Martínez-López

**Abstract** The proliferation of advertising in all communication media causes consumers to perceive a significant amount of competitiveness between advertised products, as well as to feel overwhelmed by the intrusiveness of their advertisements. When taken together, these dimensions form the concept “advertising clutter.” A review of the literature shows that perceived intrusiveness is the main component of the perception of clutter. Advertising clutter can prompt undesired behaviors (e.g., advertising avoidance) as well as attitudes contrary to those that companies' advertising campaigns hope to achieve. It also leads to diminished advertising efficacy in terms of consumer memory, a decrease in positive attitudes towards the message and brand, as well as declined purchasing intention and, therefore, sales. In this article, the main consequences of advertising clutter for consumers in online media are reviewed and discussed. To that end, a theoretical review of this concept and its main dimensions is performed; special attention is paid to the online context. Finally, some practical recommendations and research opportunities are pointed out.

**Keywords** Intrusiveness · Online advertising clutter · Irritation · Avoidance

## 1 Introduction

Currently, the Internet holds a special place as a medium for its ability to attract advertising investment; businesses are increasingly transferring funds from conventional media to the Internet (Nielsen 2012). This is due to advertisers' loss of

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faith in mass communication media like television, radio, print, etc. One of the main reasons for the loss of advertising efficacy in conventional media is that consumers are saturated by the quantity of ads and their largely persuasive style (Elliott and Speck 1998; Hong 2006). These circumstances produce certain behaviors and attitudes towards the ad and brand that are contrary to the desires of the businesses (Ha and McCann 2008a, b). One of the most common effects is advertising avoidance. This article focuses on the analysis of the consumers' perceived intrusiveness of advertising and the ensuing behaviors of evasion that said perceived intrusiveness could generate in the online media. In an online setting, the specifics of advertising, especially when compared to typical advertising in traditional media can boost the consumers' perception of intrusiveness to a greater extent. Specifically, special attention is paid to demarcating the main perceptions that evoke evasive behaviors in the consumers as a defensive mechanism in response to online advertising. These perceptions run contrary to the advertising campaigns' objectives. Some of the consumers' physical and mental states that can drive avoidance of online advertising are: perceived intrusiveness, irritation and a perceived lack of control of navigation.

The remainder of the article is as follows. First, a description of the concept of advertising clutter is made, analyzing its main sources and components. Perceived advertising intrusiveness, one of the most commented-upon dimensions in the literature, is highlighted; this concept is reviewed in this article, both in general and for online environments. Next, the concept of advertising avoidance, one of the most significant negative emotional responses that might potentially arise in consumers exposed to online ads, is introduced. Finally, several conclusions, recommendations for practitioners and research opportunities are highlighted.

## 2 Background: Advertising Clutter

Advertising clutter, in terms of both conventional offline and online media, has been widely studied. According to Ha (1996), the perception of clutter corresponds to the advertising density of a media and is contributed to by three variables: *advertising overload*, *intrusiveness (reactance)* and *competitiveness (interference)*. The current levels of advertising density can explain the ever-shrinking efficacy of advertising. In situations of high density, there are too many brands in one medium competing for the attention of the consumers, the users of said medium. Under these circumstances, there is a high chance that the users of the medium's attention will worsen, which, in turn, might generate non-desirable effects on memory, attitude or behaviors towards the ad, the advertised product or the medium in which the ad appears. Analysis of the literature reveals that the study of advertising clutter in distinct media is primarily done from the standpoint of ad-processing and the effects the ads have on variables such as: recall of the advertised brand and/or the advertisement, awareness, attitude, willingness to buy the advertised product, etc.

Ads, therefore, compete with the content of the communication medium that houses them for the users' attention. The main studies show poor results in consumers' memory in media where a high level advertising clutter is perceived; this usually happens within communication media that are not favorable for consumers' processing of ads' messages. In this setting, the consumer can develop negative attitudes towards the advertisement (Ha 1996). One of the main findings from the study of the advertising clutter phenomenon is that the short-term profits that a medium (e.g. certain TV channels) can see from selling a lot of advertising space/time to businesses and broadcasting their messages might not pay off in the long run. This results from the audience's advertising saturation, which in the short-term reduces advertising efficacy and in the long-term generates negative attitudes towards advertisements that appear in the medium. Nevertheless, despite the audience's dislike, the media have to endure the perception of advertising clutter, since advertising is the their main income source (Ha and Litman 1997).

In order to explain the perception of clutter in any medium, it is essential to consider the distinction that Ha and McCann (2008a, b) draw between different types of communication media and their form of presenting the ad. Thus, we can distinguish between media that allow the auto-consumption of information, in other words, media that allow the user to decide the rhythm and type of information that they want to see (e.g. in print media) and captive-media like (e.g. radio, television), that force the consumer to face the information at a determined rate. The case of the Internet is unique due to its special characteristics that can offer users both options; depending on the ad format used, the perceived level of advertising clutter will fluctuate (Ha 2003).

With the goal of making a generalization about the term "clutter" in offline and online media, Ha and McCann (2008a, b) performed a meta analysis, analyzing the term clutter in relation to three complementary perspectives: structural, information-processing and functional. Below they are briefly introduced.

The *structural perspective* focuses on the study of the physical characteristics of the ad in the analyzed medium. The major findings on this dimension of clutter are (Riebe and Dawes 2006): advertising overload can lead to, first, low rates of memory of the ad by the audience; and, second, a perception that the medium presenting the ad is of low quality. Additionally, similar results can be found for the clutter's dimension competitiveness. Competitiveness is characterized by the rivalry between advertisers, expressed through the number of advertising messages and different brands there are for a certain product category. In the specific case of media that do not force ads on the user (e.g. Internet or magazines), the effect produced by the dimension of competitiveness is slight. This enables the user to easily move between the medium's content and overlook the between-brand competition.

From the perspective of *information processing*, advertising clutter's impact determines the consumers' ability to process the message (Brown and Rothschild 1993; Ray and Webb 1986). This phenomenon can be explained through diverse psychological theories on information processing. First, the *overload theory* postulates that a reduction in advertising efficacy occurs due to people's limited

capacity to process a message. From the cognitive psychology point of view, when a user finds him/herself faced with a choice of brands, and the medium is overloaded with advertising information, the processing of a message/ad is done at the expense of another message/ad (Schneider et al. 1982).

Similarly, the *selective attention theory* offers an explanation for how consumers break free from the captivity of the limitations imposed by a medium. The theory points out that selective attention is the product of a protection mechanism that allows human beings to allot their limited attention resources according to their needs (Smith and Buchholz 1991; Wickens 1991). Therefore, the decision not to pay attention to ads is the result of the consumers' perception that the ads are not pertinent to their lives. Thus, their mental processing resources are reserved to pay attention to the editorial content of the medium, which is what interests them, not the advertising content (Ha and McCann 2008a, b). Another of the theories widely used in cognitive psychology applied to the processing of advertising messages is the Elaboration Likelihood Model (ELM) (Petty and Cacioppo 1981). The ELM explains the effects of advertising through message processing. In high-involvement conditions, the consumer processes the information through the central route; however in situations of low involvement, the peripheral route is used. Specifically, if consumers are very involved with the advertised product, it is more likely that exposure to the ad will lead to processing the message through the central route, investing greater effort in processing the message and developing ideas about the brand or product. On the other hand, in consumers slightly involved with the advertised product, the information processing follows the peripheral route; this explains why an ad's elements like color and execution are more relevant in determining the result of the message in this type of consumer. In this sense, and regarding advertising clutter, it has been observed that if consumers process an advertisement in an ad-saturated medium, an appropriate use of peripheral signals can be a decisive factor in terms of advertising efficacy and memory (Ha and McCann 2008a, b).

The theory of *psychological reactance* is employed to explain resistance towards and evasion of obstacles that impede the user of a medium from enjoying their liberty. This type of behavior is frequently observed in consumers when they are forced, without their consent, to view advertisements (Edwards et al. 2002). According to Brehm and Brehm (1981), psychological reactance implies a negative reaction from consumers when they perceive that something is depriving them of their liberty. Thus, when a user is exposed to an advertisement in such a way that they perceive the ad as depriving them of their liberty to enjoy the medium's content of interest to them, the consumer will tend to reject the advertising exposures. Consequently, they would try to avoid all of the medium's advertisements (Bhattacharjee 2010).

From a *functional perspective*, emphasis is put on the active role that the consumers of a medium play in processing advertising messages. This perspective aids in understanding how motivations can drive the use of media and determine how messages are processed. When one tries to explain the motivations for the use for certain media, some theories prove to be particularly revelatory. One of them is the

*uses and gratifications* theory, which is employed to explain the motivations for use of media such as television, Internet and current social networks (Bonds-Raacke and Raacke 2010; Roy 2009; Rubin 1983; Ruggiero 2000; Stafford et al., 2004).

MacInnis and Jaworski (1989) suggest that the process of advertising communication is based in need, motivation and the consumer's opportunity to process the ad. Thus, when an ad complies with the user's motivations, the advertising message is seen as a useful offering of information about the product, or even as a part of the medium's entertainment. In this scenario, the consumer will not see the ad as something negative (MacInnis and Jaworski 1989). Therefore, if the medium aligns with the motivations for use and rewards the users, the advertising content will be desirable, as it is useful for the consumers. On the other hand, in a situation where the consumer perceives advertising clutter in a medium, if the effort required to avoid the ad and the risk of missing the medium's content are high—this largely happens in media that make the spectator a captive of the ad, e.g. television—, then it is likely that the consumer will try to avoid the medium altogether (Ha and McCann 2008a, b).

Independently of the perspective of analysis, the effect of advertising clutter on users of a medium varies according to the perception of each individual. It is this individual perception that determines the non-desired impact of the clutter on the processing of the message (e.g. negative attitudes towards the ad). In the end, advertising clutter (and intrusiveness, its main dimension) is considered key to the evaluation of advertising effectiveness. It is crucial to bear this in mind when designing communication campaigns, assessing the level of ad clutter of each medium and the non-desirable effects that it can have on the campaign's efficacy (Hammer et al. 2009). This will provide information that is useful for ascertaining which media are the most suitable for launching advertising campaigns.

### **3 Perceived Intrusiveness in Online Advertising**

#### ***3.1 Conceptual Introduction***

Intrusiveness is considered one of the most important dimensions of the perception of a medium's advertising clutter (Edwards et al. 2002; Ha 1996; Nelson and Teeter 2001; Sipior and Ward 1995), a key factor in explaining the consumer's behavioral response of advertising avoidance. It is defined as "the degree to which advertisements in a media vehicle interrupt the flow of an editorial unit" (Li et al. 2002; p. 39); i.e., when a user is taken away from their reason for navigating the Internet or from their reason for visiting a specific website by being cutoff by an advertising message. Also, the perception of intrusiveness can be heightened when an individual has little time to accomplish a task in a medium. Therefore, the users of a medium will have to evade advertisements when they are perceived as intrusive. In summation, the perception of intrusion is the materialization of a

mechanism by which the ad causes annoyance and triggers emotional reactions in the user, possibly driving the user to advertising evasion (Edwards et al. 2002). In other words, perceived intrusion is a measure of how distracting an ad is and of the consequent wandering of attention from the user's task (McCoy et al. 2008).

An analysis of the literature allows perceived intrusion to be approached from diverse perspectives that we detail next.

*Interference with private life.* In relation to the consumer's privacy, intrusion could be defined as an invasion into an individual's solitude, including intrusion into private subjects (Nelson and Teeter 2001; Sipiør and Ward 1995). From this perspective, the perceived intrusion of the ad could be defined as the degree to which the non-desired marketing interferes with an individual's cognitive process and task completion; also the degree of interference with the content of the medium being viewed. In this vein, authors such as Sheehan and Hoy (1999) observed that consumers do not consider ads intrusive if they have previously contacted the advertiser responsible for the ad. The non-desired ads, those that appear without the user's permission, could be considered an encroachment on the user's privacy. One of the main conclusions is that consumers tend to consider ads intrusive if they are not familiar with the advertisers or if they are not expecting to receive ads (see Milne et al. 2004).

The following approach is related to *cognitive process and task performance*. The most relevant studies of the term *intrusion* make use of it (e.g., Ha 1996; Li et al. 2002). It has been found that the intrusion of an ad during cognitive processing could cause the user to perceive the ads as harmful. In general, the experimental research into this issue has tried to identify the determining factors of the consumers' response when faced with an interruption of their specific tasks. In this case of disturbances on the Internet, a rise of intrusive feeling can drive the user to complete evasion of the advertising format in order to finish their planned tasks (Mormoto and Chang 2009). Therefore, it is essential to evaluate what situations or circumstances lead to online advertising being perceived as interruptive to the users' navigation experience. It has been concluded that the perception of task interruption depends on the type of navigation being done (goal-directed versus exploratory) as well as on other factors such as (Edwards et al. 2002; Moe 2006): the characteristics of the advertising format, the moment of interruption, the factor that causes the interruption, and the context and cognitive intensity with which the user is performing his/her task.

The third perspective from which advertising intrusion has been studied is related with the *content of the communication media* (Ha 1996). From this perspective, the perception of an ad's intrusion is tied to the user's motive for accessing the medium's content. In other words, in order to observe the level of annoyance that the advertising message arouses in an individual, it is necessary to also understand the motivations or objectives that have brought the user to access the medium that is broadcasting the ad. From these possible motivations and objectives Ha and McCann (2008a, b) highlight the following: information, entertainment, purchasing and exploration. Therefore, if these objectives, depending on which explains the purpose of the user's navigation on a case-by-

case basis, are perceived as being interrupted by ads, the perception of intrusion will be present.

### ***3.2 Perceived Intrusiveness and Online Advertising Formats***

Currently, the common individual frequents different communication media. Each individual is subjected to advertising messages, presented through various media formats. On the Internet, ads can be considered even more annoying than in traditional media; this is the case, for instance, of the massive and uninvited advertisements delivered through spam. In Table 1, a concise review of the most relevant studies on the subject of the consumer's perceived intrusiveness is shown; moreover, details are provided about diverse advertising formats that have been analyzed.

Until now, most of the research that studies how interruption of the user's tasks or objectives affects their attitudes of advertisement processing has based its analysis in experimental methodologies. Generally, this research tries to identify the factors that determine the consumers' response when their tasks are interrupted. In this vein, some studies have identified which characteristics of a stimulus result in interruption of the task at hand. Since users normally have a specific task when viewing a website's editorial content (written), the interruption caused by the online ad can be seen as even more intrusive than in other conventional communication media (Li et al. 2002). As a result of the interruption, users can show negative feelings towards the ad in general or might perceive the advertised brands in a negative light. They will consequently develop unfavorable attitudes towards purchasing the advertised brands (Batra and Ray 1986; MacKenzie et al. 1986). Furthermore, these negative attitudes can drive the user towards complete evasion of the advertising format in order to finish their planned tasks (Mormoto and Chang 2009). Hence, as previously said, it is necessary to know what causes the ad to be perceived as disruptive to the user's experience. To do this evaluation, issues such as the user's type of task or navigation style should be considered.

As can be observed in Table 1, the study of ad intrusiveness has frequently focused on several ad formats, a priori considered intrusive, such as pop-ups, interstitials and spam (Edwards et al. 2002; Fuxi et al. 2009; Li et al. 2002; McCoy et al. 2008; Morimoto and Macias 2009; Truong and Simmons 2010; Ying et al. 2009). Different advertising formats have been observed providing differing levels of perceived intrusion. Some formats have the capacity to mix their content with that of the websites that house them; other, like interstitials, are designed to forcefully interrupt the user's flow thereby capturing their attention (McCoy et al. 2007, 2008; McCoy and Fernández Robin 2011).

The interest in evaluating distinct advertising formats stems from the desire to understand which format arouses only a minor perception of intrusion in the consumer, thereby not hindering the goals of the ad. McCoy et al. (2008) distinguish between ads that do and do not obscure the website content. They noted that banner ads, in their different variations, do not hide website content, or in other

**Table 1** Studies on the users' perceived intrusiveness in online advertising

Studies (chronological order)	Analyzed ad format	Related variables	Research aims and main findings
Li et al. (2002)	<ul style="list-style-type: none"> <li>• Pop-up interstitial</li> <li>• Television Commercials</li> <li>• Magazine Ads</li> </ul>	<p><i>Consequences:</i> Irritation</p> <ul style="list-style-type: none"> <li>• Cognitive evasion</li> <li>• Behavioral evasion</li> </ul> <p><i>Antecedents</i></p> <ul style="list-style-type: none"> <li>• Cognitive intensity</li> <li>• Editorial-ad congruence</li> <li>• Duration of interruption</li> <li>• Ad entertainment</li> <li>• Ad informativeness</li> </ul> <p><i>Consequences</i></p> <ul style="list-style-type: none"> <li>• Ad irritation</li> <li>• Ad avoidance</li> </ul>	<ul style="list-style-type: none"> <li>• A measurement scale for perceived intrusiveness (8 items) is validated.</li> <li>• Evaluation of cognitive intensity in relation to the degree of perception of intrusion.</li> <li>• A direct correlation is observed between the degree of cognitive intensity applied to the user's task-at-hand and the perceived intrusion. The greater the cognitive intensity is, the greater the perceived intrusion experienced will be.</li> <li>• Feelings of irritation and ad avoidance are consequences of perceived intrusiveness.</li> <li>• When ads are perceived as informative, the viewers' perception of ad intrusiveness is lower. So, the more value (information or entertainment) viewers perceive in an ad, the less intrusive it is perceived</li> </ul>
Morimoto and Chang (2006)	<ul style="list-style-type: none"> <li>• Commercial E-mail and direct postal mail</li> </ul>	<p><i>Independent variables</i></p> <ul style="list-style-type: none"> <li>• Intrusiveness</li> </ul> <p><i>Dependent variables</i></p> <ul style="list-style-type: none"> <li>• Ad Irritation</li> <li>• Attitude towards Spam</li> <li>• Ad Skepticism</li> <li>• Ad Avoidance</li> </ul>	<ul style="list-style-type: none"> <li>• Unsolicited commercial emails are more irritating than direct postal mail.</li> <li>• The theory of reactance in the context of email and postal mail with commercial ends is not completely supported. This explains why reestablishing control is not one of the habitual behaviors observed in the recipients of these advertising formats.</li> <li>• The more intrusive an e-mail is perceived as by an individual, the stronger his/her reactance against it will be. Consequently, the worse his/her attitude towards it is, the stronger his/her avoidance response will be.</li> </ul>

(continued)



**Table 1** (continued)

Studies (chronological order)	Analyzed ad format	Related variables	Research aims and main findings
McCoy et al. (2008)	<ul style="list-style-type: none"> <li>• Pop-up interstitial</li> <li>• Online formats</li> </ul>	<p><i>Manipulated variables</i></p> <ul style="list-style-type: none"> <li>• User's control to close ad</li> <li>• Obscuring of site content</li> </ul> <p><i>Consequences</i></p> <ul style="list-style-type: none"> <li>• Irritation</li> <li>• Attitude towards website</li> <li>• Behavioral Intention</li> <li>• Advertisement content recognition</li> </ul>	<ul style="list-style-type: none"> <li>• Perceived control over closing the ad as well as obstruction of the ad influence recognition of the ad; this influence is direct and positive in the case of control and negative in the case of obstruction.</li> <li>• Intrusion is considered an antecedent of irritation. In turn, irritation is a direct antecedent of attitude towards the website and an indirect antecedent of the user's behavioral intentions (revisiting or recommending the website to others).</li> <li>• If ads are included that obscure site content, it is important to provide the user with the control to remove them.</li> <li>• Modeling perceived intrusiveness using artificial neural networks.</li> <li>• Perceived ad intrusiveness is influenced by several factors. Features of the ad and the hosting website (e.g. semantic and color differences) are also analyzed.</li> <li>• A three layer neural network is proposed. The model has high accuracy, based on the simulation results.</li> <li>• The greater the perceived intrusiveness of an unsolicited commercial email is, the more the consumers' reactance will be. Such reactance causes ad avoidance and negative attitudes.</li> </ul>
Fuxi et al. (2009)	<ul style="list-style-type: none"> <li>• Different types of ad formats from 500 distinct webpages</li> </ul>	<p><i>Manipulated Variables</i></p> <ul style="list-style-type: none"> <li>• Size and shape</li> <li>• Web advertising characteristics</li> <li>• Format</li> </ul>	
Morimoto and Macias (2009)	<ul style="list-style-type: none"> <li>• Direct marketing using unsolicited commercial e-mails</li> </ul>	<p><i>Independent variables</i></p> <ul style="list-style-type: none"> <li>• Intrusion</li> </ul> <p><i>Dependent variables</i></p> <ul style="list-style-type: none"> <li>• Attitude toward the brand</li> <li>• Advertising evasion</li> <li>• Attitudes toward advertising medium</li> </ul>	

(continued)

**Table 1** (continued)

Studies (chronological order)	Analyzed ad format	Related variables	Research aims and main findings
Ying et al. (2009)	<ul style="list-style-type: none"> <li>• Interstitials (pop-up and pop-under)</li> </ul>	<p><i>Manipulated variables</i></p> <ul style="list-style-type: none"> <li>• Content congruence</li> <li>• Appearance rate</li> <li>• Frequency</li> <li>• Quantity</li> <li>• Content page integrity</li> <li>• Sound effect</li> <li>• Size</li> <li>• Animation effect</li> </ul>	<ul style="list-style-type: none"> <li>• Perceived intrusiveness of ads can be controlled through manipulation of certain aspects of the ad such as: its value to the user, placement and quality of execution.</li> <li>• When an ad provides value, in other words, when it is considered informative or entertaining, it is perceived as less intrusive.</li> <li>• It is equally as positive for the advertisers as for the consumers that pop-ups are related to the website's content.</li> <li>• If the frequency and quantity of ads is carefully controlled, they will be perceived as less intrusive.</li> <li>• The congruence between a website's content and the ad content were not significant in this study. In other words, advertising creativity does not have to match the website's content for it to be effectively perceived or remembered by the user.</li> </ul>
Truong and Simmons (2010)	<ul style="list-style-type: none"> <li>• Digital advertising in mobile environments</li> </ul>	<p>Qualitative analysis of 20 individuals on the perceived intrusiveness of advertising in mobile media.</p>	<ul style="list-style-type: none"> <li>• The execution of the ad, in other words, the perception of it being well or poorly done, shows no effect in this study. The same is true for the ad's sound. Nevertheless, the ad's size does influence the perception of the message.</li> <li>• There is a direct and proportional correlation between how intrusive an interstitial is perceived to be and it's duration. The longer the ad is, the more intrusive it is considered.</li> <li>• The exploratory analysis shows that banner, pop-up, spam and disingenuous email are the advertising formats most negatively viewed by the audience.</li> </ul>

(continued)

**Table 1** (continued)

Studies (chronological order)	Analyzed ad format	Related variables	Research aims and main findings
Goldfarb and Tucker (2011)	<ul style="list-style-type: none"> <li>Highly visible advertising and context-based advertising (e.g., Google Ad sense)</li> </ul>	<p><i>Manipulated variables</i></p> <ul style="list-style-type: none"> <li>The ad's content (oriented or non-oriented)</li> <li>Visibility (high vs. low)</li> </ul> <p><i>Independent variables</i></p> <ul style="list-style-type: none"> <li>Gender</li> <li>Hours spent on the Internet</li> <li>Age</li> <li>Income</li> </ul> <p><i>Dependent variables</i></p> <ul style="list-style-type: none"> <li>Purchasing intention</li> </ul>	<ul style="list-style-type: none"> <li>Ads that appear frequently (highly visible) are considered annoying. Both highly visible and context-based ads work better when used separately.</li> <li>The fact that context-based ads and high visibility ads (e.g. display ads) are best used separately is even truer for individuals who want a high level of privacy on the Internet.</li> <li>Context-based ads are more tolerated as they are more likely to offer better information.</li> </ul>
McCoy et al., (2012)	<ul style="list-style-type: none"> <li>Causal model of online advertising intrusiveness and irritation</li> </ul>	<p><i>Manipulated variables</i></p> <ul style="list-style-type: none"> <li>Attitude towards the ad</li> </ul> <p><i>Repeated exposure of the ad</i></p> <p><i>Dependent variables</i></p> <ul style="list-style-type: none"> <li>Ad Irritation</li> <li>Ad intrusiveness</li> <li>Intention to revisit the website</li> <li>Intention to recommend the website to others.</li> <li>Performance level in successfully completing several tasks on the website.</li> </ul>	<ul style="list-style-type: none"> <li>A model is proposed to ultimately predict, on the one hand, the users' intentions to return to the website and recommend the site to others, and, on the other, his/her performance in successfully completing information retrieval tasks on a website. These variables' direct antecedents are ad irritation and ad intrusiveness.</li> <li>The proposed model is capable of explaining up to 50% of the irritation produced by the message.</li> <li>Six of the eleven hypotheses that compose the model are supported. So, the proposed model is only partially supported.</li> </ul>

(continued)

**Table 1** (continued)

Studies (chronological order)	Analyzed ad format	Related variables	Research aims and main findings
Varmali et al., (2012)	<ul style="list-style-type: none"> <li>• SMS-based mobile advertising campaigns</li> </ul>	<p><i>Manipulated variables</i></p> <ul style="list-style-type: none"> <li>• Message Characteristics (prior permission, incentive).</li> <li>• Individual Differences (content involvement, prior experience, perceived medium-fit)</li> </ul> <p><i>Dependent variables</i></p> <ul style="list-style-type: none"> <li>• Perceived intrusiveness</li> <li>• Attitude towards the campaign</li> </ul>	<ul style="list-style-type: none"> <li>• Both the existence of an incentive and prior permission positively influence campaign outcomes.</li> <li>• Perceived medium-fit components (e.g., perceived brand-medium fit) and content involvement are strong predictors of consumers' perceived intrusiveness of an SMS-based advertising message.</li> <li>• There is no relationship between consumer's campaign attitude and their perceptions regarding brand-medium fit, which is mostly influenced by content involvement.</li> <li>• Prior experience with the mobile medium has no relationship with the attitudinal reactions towards the campaign.</li> <li>• Perceived brand-medium fit is the strongest predictor of the affective response caused by an advertising message.</li> </ul>

words, they do not block it from view; other online ad formats like pop-up ads, however, do appear in the user's screen, obscuring website content. In their study, they found that the level of perceived intrusion could predict attitudes towards the website and behaviors like intention to return to the page. It is also seen that the perception of intrusion is directly related to ad recognition. This distinction between ads that do and do not obscure the website content allowed authors to verify that pop-ups that block content produce higher rates of perceived intrusion than conventional pop-ups, resulting in their being more irritating for users. Recent studies explore the premise that ads are more intrusive when they have such characteristics as (Smith 2011): being poorly executed, being too long or large or being located in a medium that users already perceive as having too many ads, being overrun by pop-ups (clutter overload) or having an advertising style inconsistent with the containing website, among others.

With regards to an advertising message's characteristics or content, it would be reasonable to think that they influence the effectiveness of the ad and the user's response. Ducoffe (1996) points out that a message's characteristics have to provide some important value to the consumer. Thus, the informational value meets the consumers' need for utilitarian value and cognitive value, while the entertaining information covers the hedonistic and emotional value of the message (Brown and Stayman 1992; Edwards et al. 2002). Information or entertaining ads are perceived as less intrusive, as the informational characteristic shows a large effect on the concept of intrusion. This explains why individuals looking for an ad to be informative are more oriented towards the completion of a task (Ducoffe 1996; Xu et al. 2008). In the same vein, Smith (2011) concludes that ads that put forth content not related to information sought by the user are perceived as more intrusive.

The ad's location and frequency of exposure also affect the perception of intrusion, since users want their experience to conform to their expectations of the site being navigated. Thus, when the users feel that they are too frequently subjected to ads, they tend to view the ads as thwarting their navigation. This, as well as having too many ads in too small a space, can lead to feelings of irritation (Morimoto and Macias 2009).

### ***3.3 Perceived Intrusiveness and Negative Attitudes***

The perception of and attitudes towards a brand can be damaged by the perceived intrusiveness of ads (MacKenzie and Lutz 1989). Together with the perceptions about the ad's content, attitude towards advertising is used to evaluate the effects of an ad; consumer's attitude towards advertising can also moderate the response to a specific message (MacKenzie and Lutz 1989) and can differ between media (Elliott and Speck 1998). It is understood as the learned predisposition to respond favorable or unfavorably to an ad (Pollay and Mittal 1993). Morimoto and Macias (2009) point out that perceived intrusion directly influences behaviors towards an

ad. Furthermore, responses to advertising stimuli are also moderated by the individual's affective responses towards the ad. The relevancy or interest of an ad to the individual can also moderate the level of perceived intrusiveness. Thus, if an ad is relevant or of interest to a user, the perception of intrusion will be lesser (Wehmeyer 2007).

The consumer's attitude towards where the ad is shown is also going to play a part in their response to the ad. According to Cotte et al. (2006), Internet-based environments, whether they have advertisements or editorial content, also have a hedonistic value for the navigators. It is therefore recommendable that the advertising content within be coherent with this value. As previously stated, if the ad is in line with the values the consumer is looking for, the ad ceases to be seen as intrusive and does not generate negative responses (Edwards et al. 2002).

Another negative emotional reaction related to the individual's perception of intrusiveness of online advertising is irritation. For example, it can be irritating if a user has to close an ad in order to continue viewing the content of the website hosting the ad. This irritation can emerge if the consumer is unable to close an ad and is, therefore, obligated to view the ad (e.g. video, animation) or simply wait for the ad to disappear. On the other hand, in the time it takes to close an ad the user stops paying attention to the website and starts focusing on the advertising stimulus. This proves inconvenient for the user, as it requires a greater cognitive effort (Edwards et al. 2002).

There seems to be a correlation between the perception of an ad as irritating and its perception as intrusive. The aspects of an ad that can cause irritation have been studied although the psychological mechanisms that can elicit these feelings have not been reviewed in great detail. According to Aaker and Bruzzone (1985), irritation corresponds with the sensation of displeasure that consumers experience when faced with diverse forms of advertising stimuli. It is important to note that irritation has nothing to do with the value of an ad in and of itself, but rather with the negative emotional reaction the consumers have towards the ad. Said negative reaction is what causes users to perceive the ad as intrusive (Edwards et al. 2002; Wehmeyer 2007). Various factors have been identified in the literature as plausible causes of irritation to the consumer such as: the type of product advertised, the intrusion of the ad and the loss of control perceived by the user (Aaker and Bruzzone 1985; Edwards et al. 2002; Ha 1996; Li et al. 2002; Stayman and Aaker 1988), the ad being directed at the wrong audience, manipulative messages, delays caused by ads being placed in inappropriate spaces, excessive repetition during a short period of time and forced exposure to the ad (Rotzoll et al. 1996; Li et al. 2002).

For a user to sense that an ad is intrusive, he or she must see the ad as interrupting his or her experience or navigation in the medium, i.e., a certain website. Interruption can generate negative attitudes, results of the ensuing psychological reactance. This tends to make the user try to reestablish control over navigation, avoiding the ad and reducing the possibilities of processing the message (Edward et al. 2002). Thus, based on the psychological reactance theory (Brehm and Brehm 1981), it can be argued that users will try to reestablish their

independence when they notice that an ad is disrupting their freedom to navigate a website; their defensive behaviors will lead them to avoid or close the ad that incites this conflict. Similarly, when a message stays on the screen for some time, the navigator becomes a captive of the ad. This can bring the user to abandon their initial navigation purpose or even to engage in avoidance behavior such as leaving the website. In this scenario, if an ad does not offer ways for the user to eliminate or close it, it interrupts the user's purpose of navigation; on the other hand, if it can be closed, the perceived interruption will be minor. The possibility to close an ad is an example of what some authors call "control over an ad" (McCoy et al. 2008). Therefore, the lack of perceived control over online advertising is related to not being able to close the intrusively perceived ad. Nevertheless, if an advertising message obstructs but does not fully block the website's content, closing the ad will not be necessary and the message will only be considered an interruption (Goldfarb and Tucker 2011). Some authors like McCoy et al. (2008) point out that consumers might even consider the mechanisms for controlling or closing an ad as intrusive. The goal is that users will have to voluntarily act to close the ad, when what they really want is not to have advertisements.

## 4 Advertising Avoidance

### 4.1 Brief Overview

Various negative perceptions sometimes aroused in consumers by advertising have previously been noted. These perceptions influence the formation of attitudes towards the ad and brand, although, fundamentally, they are the trigger that unleashes the user's mechanisms for advertising avoidance. Next, the general concept of advertising avoidance in online environments is introduced and analyzed.

From a psychological point of view, behavior and intention are influenced by attitudes (Eagly and Chaiken 1993). Similarly, the behaviors resulting from the processing of the advertising message are preceded by cognitive and emotional evaluations (Vakratsas and Ambler 1999). If cognitive and affective responses are negative, it is logical to expect a negative behavioral response as well. The kind of negative response we focus on here is known as advertising avoidance. Speck and Elliott (1997) define it as the users of a medium's reaction to reduce exposure time to the advertised content. This phenomenon has been widely studied by diverse authors in relation to various media. For instance, evasive behavior towards TV advertisement goes by many names such as: zipping, zapping, flipping, flicking and grazing (Abernethy 1991; Bellamy and Walker 1996; Cronin and Menelly 1992; Zufryden et al. 1993).

The consumer's evasion of ads can be examined from the following perspectives or dimensions (Duff and Faber 2008): cognitive, in which the user decides to

ignore the ad that is being presented; affective, in which the user develops negative emotions towards the ad, making its processing more difficult; and behavioral, in which the evasion materializes in behaviors like changing the channel, leaving the room or closing the ad (Heeter and Greenberg 1985; Speck and Elliott 1997).

With respect to the main precursors of evasion, the perception of advertising clutter is believed to drive cognitive and physical evasion of the ad (Burke and Srull 1988). Cronin and Menelly (1992) point out some evidence suggesting that advertisement evasion occurs as a result of attitudes towards advertising in general. In other words, since the consumers who avoid ads do not solely do it because of the ads' content, but rather because they perceive ads as intrusive, they tend to avoid all types of advertising messages. Thus, advertising avoidance happens when consumers perceive ads as intrusive (Cronin and Menelly 1992). Specifically, when consumers get the sense that an ad is hindering them from achieving their goals or tasks in the medium where the ad appears, they consider the ad to be an obstacle; this is a significant predictor of advertising evasion in any type of medium (Speck and Elliott 1997).

## ***4.2 Online Advertising Avoidance***

On the Internet, advertising avoidance occurs in a different way than it does in other traditional media, for various reasons. Internet use is characterized by the possibility of doing tasks quickly, thanks to the speed of access to data. Internet users have the capacity to interact and control what they are viewing. Thus, the negative attitude that consumers have towards Internet ads resides, fundamentally, in the perception held about online advertising. In general, it is believed that online advertising decreases the rate of access to data, delaying the completion of tasks. Interruption of the navigation activity could give rise to a negative response towards the ad, in the form of avoidance (Edward et al. 2002). Hence, perceived intrusion is considered a precursor both directly and negatively related with online advertising avoidance (Morimoto and Macias 2009).

Cho and Cheon (2004) performed various experiments to arrive at a detailed explanation as to why people avoid online advertisement. They calculated the roles of three variables that are very important at the moment of eluding this type of advertising format: the users' belief that online advertising is an impediment to achieving navigation goals; their perception that the quantity of ads on the Internet is overwhelming; and their previous negative experiences. They also analyzed the affective, cognitive and behavioral factors that cause users to avoid online ads. They concluded that one of the main causes of advertising avoidance comes from a user's belief that the Internet is more a tool for completing tasks than it is a medium for entertainment. This makes users avoid ads more willfully, especially when they have a time limit to complete their task.

Analysis of advertising avoidance across diverse advertising formats on the Internet has been done with an emphasis on the banner format. It has been noted



that cognitive avoidance is produced unconsciously when consumers avoid focusing the ad in their visual field. Benway (1998, 1999) calls this phenomenon banner blindness; this author suggests that consumers' vision unconsciously adapts to avoid online ads. Thus, cognitive avoidance is considered an automatic process; this includes visual stimuli incorporated in the ad and does not require a conscious behavioral decision or action by the consumer. Some authors propose that the cognitive dimension is the most important dimension of the online advertising avoidance phenomenon (see Li and Meeds 2007). On the other hand, behavioral or mechanical avoidance comes from the consumer's conscious decision to, for example, avoid the ad, close the ad or leave the website (Cho and Cheon 2004; Chatterjee 2007; Duff and Faber 2008).

## 5 Concluding Remarks

Analysis of the literature reveals that an advertisement's efficacy can be reduced by the presence of certain perceptions, attitudes and behaviors on the part of the consumers. This loss of efficacy has been studied in relation to both conventional mass media and the Internet. Awareness of the deciding factors of advertising effectiveness, and how to manage them, is of growing importance because of companies' large investment in online advertising in recent years.

Advertising clutter is a unique phenomenon that strongly impacts the effectiveness of companies' online advertising campaigns. It is measured by the degree of advertising pressure put on consumers in a particular medium. Considering the diverse compounding dimensions of advertising clutter, the dimension intrusiveness stands out; i.e., the perception that the ad is invading a space where it does not belong, which causes irritation in the consumer. It is this irritation along with the perceived loss of control the consumer experiences over which of the medium's content they are viewing that can drive them to advertising avoidance.

The most recent studies that have analyzed perceived intrusiveness within the context of websites have found various circumstances under which it is much more likely that an ad will be perceived as intrusive; e.g., poor execution of the ads, presence of too many ads in general, or pop-ups in particular (see Smith 2011). Advertising avoidance is one of the most significant defense mechanisms used to cope with the disturbing perception of clutter in a specific website. This phenomenon is studied through three perspectives or dimensions (cognitive, affective and behavioral), although cognitive avoidance stands out in Web-based environments. We must be aware of the fact that there exist ad formats in conventional websites that can be blocked automatically by the Internet browser, without the consumer realizing it, thanks to pop-up killers or banner killers, among others. Under these circumstances, advertising avoidance by the consumers does not take place. However, the proliferation and consumption of multimedia content (e.g., video, audio) complicate the automatic elimination of ads in certain circumstances; in these cases, advertising avoidance's behavioral dimension plays a bigger role

than the cognitive and affective avoidance responses. If the consumer perceives an ad as intrusive but does not have means to close it, he or she will experience a perceived loss of control over the website being viewed, which will in turn lead to negative reactance (e.g., negative attitudes towards the website, message or brand). Finally, this will result in the ad losing efficacy and decreased intention on the consumer's part to purchase the advertised products.

In summation, the literature suggests that the information offered by the ad must be in line with the users reasons for using the medium. The uses and gratification theory proposes online advertising is more likely to be accepted when it is useful for the Internet user. Being useful reduces the probability that any kind of advertising avoidance will occur and produces desired effects on memory, attitudes and purchasing behavior. The case of entertaining and informative ads is especially relevant as it can also moderate the appearance of negative reactions towards the ad.

To avoid online users employing avoidance mechanisms, ads should not compromise consumers' navigational freedom or impede their tasks (Edward et al. 2002). If a loss of control is perceived, based on the psychological reactance theory (Brehm and Brehm 1981), the consumer will try to reestablish independence or control over the situation by means of advertising avoidance. This type of defensive response is not good for the advertised brands and the ad, ultimately, damages the advertising campaign.

## 6 Practical Implications and Research Opportunities

In concurrence with the theoretical advertising issues presented and discussed throughout the article, some useful recommendations for practitioners are briefly noted here:

- *Use of relevant campaigns based in the tastes and preferences of the users.* Having campaigns based in content marketing significantly increases engagement and involvement with the brand and with the ad. This engagement leads to better processing of the advertisements, which will positively affect memory and recognition. Consequently, users' attitudes will improve, reducing ad irritation and avoidance.
- *Use of contextual ads or ads based in the user's behavior.* Nowadays, thanks to the information about users' navigational habits, it is advantageous to take into account the interests and tastes of the users in order to offer them more relevant messages, thereby decreasing advertising avoidance.
- *Correctly executed, entertaining ads.* Having correctly executed, entertaining ads can be a decisive factor in terms of the ad's efficacy, causing better advertising memory.
- *Avoiding intrusive advertising formats.* Developing new, non-intrusive formats will prove to be crucial for gaining the consumers' acceptance. In this sense, the

Internet advertising's white papers offered by various organizations (Interactive Advertising Bureau, Nielsen Company, etc.) provide companies with useful information on how to avoid bothering users with their ads, as is often the case with pop-ups, pop-unders, etc.

- *Incorporation of mechanisms to close the ad.* For the ad to be considered less intrusive, it is necessary that users can freely close the ad. Hence, buttons that allow the window to be closed should be included. Specifically, in the case of video and audio based ads, the potential for perceived intrusiveness should be reduced by only obligating the consumer to watch or hear a brief fragment of the ad, then giving them the option to close the ad. This is enough time to inform the consumer about the ad's content without bothering them by making them view the entire ad if it is not of interest. If this tactic is followed, the user could resume their navigational objectives with only a minor interruption.

Finally, with regards to future research opportunities, it would be helpful to know which advertising formats generate lower perceptions of advertising clutter; this information should be pursued through experimental research. It would also be interesting to evaluate the effect of the ad formats that can be consciously and voluntarily avoided by the user. Additionally, studying the motivations for use of specific websites (e.g., companies' websites, retailers' websites, social networks, video-sharing websites, etc.) will help increase the understanding of which formats are most appropriate in each specific case.

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## References

- Aaker, D. A., & Bruzzone, D. E. (1985). Causes of irritation in advertising. *Journal of Marketing*, 49(2), 47–55.
- Abernethy, A. M. (1991). *Physical and mechanical avoidance of television commercials: an exploratory study of zipping, zapping and leaving*. *Proceedings presented at the proceedings of the American academy of advertising*.
- Batra, R., & Ray, M. L. (1986). Affective responses mediating acceptance of advertising. *Journal of Consumer Research*, 13(2), 234–249.
- Bellamy, R. V., Walker, J. R. (1996). *Television and the remote control: Grazing on a vast wasteland*. NY: The Guilford Press.
- Benway, J. P. (1998). Banner blindness: The irony of attention grabbing on the world wide web. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 42(5), 463–467.
- Benway, J. P. (1999). *Banner blindness: What searching users notice and do not notice on the World Wide Web*. Ph.D. Thesis, Rice University, Texas, USA.
- Bhattacharjee, A. (2010). Constraints and consequences: Psychological reactance in consumption contexts. *Advances in Consumer Research—North American Conference Proceedings*, 37, 53–56.
- Bonds-Raacke, J., & Raacke, J. (2010). MySpace and Facebook: Identifying dimensions of uses and gratifications for friend networking sites. *Individual Differences Research*, 8(1), 27–33.

- Brehm, S., & Brehm, J. W. (1981). *Psychological reactance: A theory of freedom and control*. NY: Academic Press.
- Brown, S. P., & Stayman, D. M. (1992). Antecedents and consequences of attitude toward the ad: A meta-analysis. *Journal of Consumer Research*, 19(1), 34–51.
- Brown, T. J., Rothschild, M. L. (1993). Reassessing the impact of television advertising clutter. *Journal of Consumer Research*, 138–146.
- Burke, R. R., & Srull, T. K. (1988). Competitive interference and consumer memory for advertising. *Journal of Consumer Research*, 15(1), 55–68.
- Chatterjee, P. (2007). Forced vs. voluntary exposure web ads: Immediate and long-term impact of ad avoidance on communication outcomes. *Advances in Consumer Research*, 34, 304.
- Cho, C.-H., & Cheon, H. J. (2004). Why do people avoid advertising on the internet? *Journal of Advertising*, 33(4), 89–97.
- Cotte, J., Chowdhury, T. G., Ratneshwar, S., & Ricci, L. M. (2006). Pleasure or utility? Time planning style and web usage behaviors. *Journal of Interactive Marketing*, 20(1), 45–57.
- Cronin, J. J., & Menelly, N. E. (1992). Discrimination vs. Avoidance: “Zipping” of television commercials. *Journal of Advertising*, 21(2), 1–7.
- Ducoffe, R. H. (1996). Advertising value and advertising on the web. *Journal of Advertising Research*, 36(5), 21–35.
- Duff, B. R. L., Faber, R. J. (2008). Ignored ads = liked brands? Advertising avoidance and the affective devaluation of brands. *American Academy of Advertising Conference Proceedings*, 261.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Orlando: Harcourt Brace Jovanovich College Publishers.
- Edwards, S. M., Li, H., & Lee, J.-H. (2002). Forced exposure and psychological reactance: Antecedents and consequences of the perceived intrusiveness of pop-up ads. *Journal of Advertising*, 31(3), 83–95.
- Elliott, M. T., & Speck, P. S. (1998). Consumer perceptions of advertising clutter and its impact across various media. *Journal of Advertising Research*, 38(1), 29–41.
- Fuxi, Z., Changsheng, G., & Zhiyi, Y. (2009). Research on intrusiveness model of online advertising based on neural network. *Asia-Pacific Conference on Computational Intelligence and Industrial Applications, (PACIIA 2009)*, 2, 100–103.
- Goldfarb, A., & Tucker, C. (2011). Online display advertising: Targeting and obtrusiveness. *Marketing Science*, 30(3), 389–404.
- Ha, L., & Litman, B. R. (1997). Does advertising clutter have diminishing and negative returns? *Journal of Advertising*, 26(1), 31–42.
- Ha, L., & McCann, K. (2008a). An integrated model of advertising clutter in offline and online media. *International Journal of Advertising*, 27(4), 569–592.
- Ha, L. (1996). Observations: Advertising clutter in consumer magazines: Dimensions and effects. *Journal of Advertising Research*, 36(4), 76–84.
- Ha L. (2003). Crossing offline and online media: A comparison of online advertising on TV web sites and online portals. *Journal of Interactive Advertising*, 3(2). Available at: <http://jiad.org/article33>.
- Ha, L., & McCann, K. (2008b). An integrated model of advertising clutter in offline and online media. *International Journal of Advertising*, 27(4), 569–592.
- Hammer, P., Riebe, E., & Kennedy, R. (2009). How clutter affects advertising effectiveness. *Journal of Advertising Research*, 49(2), 159–163.
- Heeter, C., & Greenberg, B. S. (1985). Profiling the zappers. *Journal of Advertising Research*, 25(2), 215–219.
- Hong, C. P. (2006). *An experimental study of persuasion on the internet: A functional approach to attitudes toward internet advertising*. Ph.D. Thesis, Florida State University, USA.
- Li, H., Edwards, S. M., & Joo-Hyun, L. (2002). Measuring the intrusiveness of advertisements: Scale development and validation. *Journal of Advertising*, 31(2), 37–47.

- Li, C., & Meeds, R. (2007). Factors affecting information processing of Internet advertisements: A test on exposure condition, psychological reactance, and advertising frequency. *American Academy of Advertising Conference Proceedings*, 93–101.
- MacKenzie, S. B., Lutz, R. J., & Belch, G. E. (1986). The role of attitude toward the ad as a mediator of advertising effectiveness: A test of competing explanations. *Journal of Marketing Research*, 23(May), 130–143.
- MacKenzie, S. B., & Lutz, R. J. (1989). An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context. *Journal of Marketing*, 53(2), 48–65.
- MacInnis, D. J., & Jaworski, B. J. (1989). Information processing from advertisements: Toward an integrative framework. *The Journal of Marketing*, 53(4), 1–23.
- McCoy, S., Everard, A., Galletta, D., Moody G. (2012). A rational choice theory approach towards a causal model of online advertising intrusiveness and irritation. *ECIS 2012 Proceedings*.
- McCoy, S., Everard, A., Polak, P., & Galletta, D. F. (2007). The effects of online advertising. *Communications of the ACM*, 50(3), 84–88.
- McCoy, S., Everard, A., Polak, P., & Galletta, D. F. (2008). An experimental study of antecedents and consequences of online ad intrusiveness. *International Journal of Human-Computer Interaction*, 24(7), 672–699.
- McCoy, S., Fernández Robin, C., Cortés, J. L. (2011). Investigating online advertising in Chile. In J. A. Jacko (Ed.), *Human-computer interaction. users and applications* (pp. 255–256). LNCS 6764, Berlin: Springer.
- Milne, G. R., Rohm, A. J., & Bahl, S. (2004). Consumers' protection of online privacy and identity. *Journal of Consumer Affairs*, 38(2), 217–232.
- Moe, W. W. (2006). A field experiment to assess the interruption effect of pop-up promotions. *Journal of Interactive Marketing*, 20(1), 34–44.
- Morimoto, M., & Chang, S. (2006). Consumers' attitudes toward unsolicited commercial e-mail and postal direct mail marketing methods: intrusiveness, perceived loss of control, and irritation. *Journal of Interactive Advertising*, 7(1), 1–11.
- Morimoto, M., & Chang, S. (2009). Psychological factors affecting perceptions of unsolicited commercial e-mail. *Journal of Current Issues and Research in Advertising*, 31(1), 63–73.
- Morimoto, M., & Macias, W. (2009). A conceptual framework for unsolicited commercial e-mail: Perceived intrusiveness and privacy concerns. *Journal of Internet Commerce*, 8(3–4), 137–160.
- Nelson, H. L., & Teeter, D. L. (2001). *Law of mass communications: Freedom and control of print and broadcast media* (10th ed.). NY: Foundation Press.
- Nielsen. (2012). *Nielsen global adview Q3*. Nielsen Company. Available at: <http://www.nielsen.com>.
- Petty, R. E., Cacioppo, J. T. (1981). *Attitudes and persuasion—classic and contemporary approaches*. Dubuque: W.C. Brown Co. Publishers.
- Pollay, R. W., & Mittal, B. (1993). Here's the beef: Factors, determinants, and segments in consumer criticism of advertising. *Journal of Marketing*, 57(3), 99–114.
- Ray, M. L., & Webb, P. H. (1986). Three prescriptions for clutter. *Journal of Advertising Research*, 26(1), 69–77.
- Riebe, E., & Dawes, J. (2006). Recall of radio advertising in low and high advertising clutter formats. *International Journal of Advertising*, 25(1), 71–86.
- Rotzoll, K. B., Haefner, J. E., & Hall, S. R. (1996). *Advertising in contemporary society: Perspectives toward understanding*. Urbana and Chicago: Univ of Illinois Press.
- Roy, S. K. (2009). Internet uses and gratifications: A survey in the Indian context. *Computers in Human Behavior*, 25(4), 878–886.
- Rubin, A. M. (1983). Television uses and gratifications: The interactions of viewing patterns and motivations. *Journal of Broadcasting and Electronic Media*, 27(1), 37–51.
- Ruggiero, T. E. (2000). Uses and gratifications theory in the 21st century. *Mass Communication and Society*, 3(1), 3–37.

- Schneider, W., Dumais, S. T., Shiffrin, R. M. (1982). *Automatic/control processing and attention*. Technical report, Illinois University Champaign, Human Attention Research Lab.
- Sheehan, K. B., & Hoy, M. G. (1999). Flaming, complaining, abstaining: How online users respond to privacy concerns. *Journal of Advertising*, 28(3), 37–51.
- Sipior, J. C., & Ward, B. T. (1995). The ethical and legal quandary of email privacy. *Communications of the ACM*, 38(12), 48–54.
- Smith, K. T. (2011). Digital marketing strategies that Millennials find appealing, motivating, or just annoying. *Journal of Strategic Marketing*, 19(6), 489–499.
- Smith, R. E., & Buchholz, L. M. (1991). Multiple resource theory and consumer processing of broadcast advertisements: An involvement perspective. *Journal of Advertising*, 20(3), 1–7.
- Speck, P. S., Elliott, M. T. (1997). Predictors of advertising avoidance in print and broadcast media. *Journal of Advertising*, 26(3), 61–76.
- Stafford, T. F., Stafford, M. R., & Schkade, L. L. (2004). Determining uses and gratifications for the internet. *Decision Sciences*, 35(2), 259–288.
- Stayman, D. M., & Aaker, D. A. (1988). Are all the effects of ad-induced feelings mediated by  $A_{ad}$ ? *Journal of Consumer Research*, 15(3), 368–373.
- Truong, Y., & Simmons, G. (2010). Perceived intrusiveness in digital advertising: strategic marketing implications. *Journal of Strategic Marketing*, 18(3), 239–256.
- Vakratsas, D., & Ambler, T. (1999). How advertising works: What do we really know? *Journal of Marketing*, 63(1), 26–43.
- Varnali, K., Yilmaz, C., & Toker, A. (2012). Predictors of attitudinal and behavioral outcomes in mobile advertising: A field experiment. *Electronic Commerce Research and Applications*, 11(6), 570–581.
- Wehmeyer, K. (2007). Mobile ad intrusiveness—the effects of message type and situation. *Proceedings of the 20th bled eConference*, June, 4–6.
- Wickens, C. D. (1991). Processing resources and attention. In D. Damos (Ed.), *Multiple-task performance* (pp. 3–34). Washington, DC: Taylor and Francis.
- Xu, D. J., Liao, S. S., & Li, Q. (2008). Combining empirical experimentation and modeling techniques: A design research approach for personalized mobile advertising applications. *Decision Support Systems*, 44(3), 710–724.
- Ying, L., Korneliusson, T., & Grønhaug, K. (2009). The effect of ad value, ad placement and ad execution on the perceived intrusiveness of web advertisements. *International Journal of Advertising*, 28(4), 623–638.
- Zufryden, F. S., Pedrick, J. H., & Sankaralingam, A. (1993). Zapping and its impact on brand purchase behavior. *Journal of Advertising Research*, 33(1), 58–66.