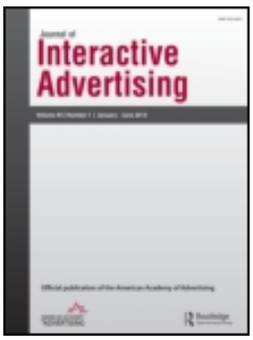

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INTERACTIVE ADVERTISING AND PRESENCE: A FRAMEWORK

Matthew Lombard and Jennifer Snyder-Duch

Abstract: New communication technologies are creating new challenges for the advertising industry. While digital and high definition television, e-mail, the World Wide Web, and other new technologies represent new possibilities for advertisers, there is little information available regarding how to take advantage of them. There are indications that applying traditional models, designed for media that provide users with a passive, impersonal experience, will be unsuccessful for the new interactive digital media. A growing body of research and theory on the concept of presence may provide a valuable framework for advertisers as they try to adapt to the changing media environment. This paper considers some of the ways advertising is evolving to incorporate interactive media and how work on presence can guide that evolution.

The Changing Nature of Advertising

Traditionally advertising has been defined as "a form of controlled communication that attempts to persuade consumers, through use of a variety of strategies and appeals, to buy or use a particular product or service" (Defleur & Dennis, 1996, p. 564) and relatedly, "paid nonpersonal communication from an identified sponsor using mass media to persuade or influence an audience" (Wells, Burnett, & Moriarity, 1998, p. 13). But it is becoming abundantly clear that although the central goal of advertising is still the same - to persuade consumers to purchase a product or service - the media environment into which advertising is placed is changing, and as a result of this trend, the nature of advertising is changing as well.

Many new channels of mass communication were developed during the latter part of the 20th century, exposing the public to an ever increasing number of mediated messages (Clocking Clutter, 2000; Fitzgerald, 1999; Lombard et al., 1997; Shales, 1994). Every day, citizens are faced with hundreds of advertising appeals delivered via television, magazines, newspapers, billboards, direct mail solicitation, e-mail spam, World Wide Web banners and pop-up boxes, and more. As a result of exposure to these messages, some argue that consumers have developed a more sophisticated understanding of the mass media and of advertising (Campbell, 2000). All of this creates a greater challenge for advertisers, and all media producers, to attract attention, especially thoughtful attention, to their messages.

In responding to this challenge much advertising has become more colorful, more vibrant, bigger, faster-paced, louder, and more obnoxious (in fact it is the "quiet" ad which stands out from the others because it is so rare). Although this trend has been associated with television advertising, the same thing seems to be happening on the World Wide Web (Geller, 2001). While the "aggressive, more is better" approach may succeed in the short run, it is likely to fail in the long term as consumers habituate to the new style and learn to ignore even the most aggressive messages (Elliot & Speck, 1998; Ha, 1996). A more promising approach takes advantage of new technological possibilities to provide a new kind of advertising experience, a customized and personalized one (Fitzgerald, 1999; Johnson, 2000). This goes beyond designing the content of messages to target specific demographic and psychographic groups. The notions of personalization and control, mentioned in the definitions of advertising above, are central to this new trend. The Internet and other interactive technologies make it possible to create ads that are not only more targeted, but more personal, in which advertising is an experience in which the consumer participates and is engaged. Thus, the model of advertising as communication that is nonpersonal and controlled exclusively by the sponsor seems to be evolving into one in which advertising is personal and interactive.

Interactive advertising gives consumers more control by giving them a range of choices in their experience with product information. And it produces a sense that the communication is more personal than traditional media ads because it creates or simulates a one-on-one interaction. Johnson (2000) characterizes the future of consumer marketing this way: "Consumers, in receiving marketing messages or doing e-business, will expect to be treated as individuals, with their preferences catered to. Why would consumers or advertisers put up with the 'spam' of a network TV commercial or magazine ad when they can interact one-on-one?"

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Understanding Interactivity

Central to the possibilities for new effective personalized advertising experiences is the ability of new technologies to allow for interactivity, most often via the use of computers and advanced television systems.

As Heeter (2000) points out, interactivity is an "overused and underdefined concept." Everything a human does to or with objects or entities in an environment can be called an interaction, and a medium that affords any such opportunities can be said to be interactive. Interactivity sometimes is used to refer to specific possible user behaviors, such as mouse movements and mouse clicks in a computer program. Designers often use the term "as a synonym for navigation and sometimes just generally to refer to good web site design" (Heeter, 2000). In the advertising industry interactive advertising often means simply advertising on the Internet (or "online" advertising) (Kaye & Medoff, 2001).

Some have offered more detailed definitions of interactivity. Heeter (2000) defines an interaction as "an episode or series of episodes of physical actions and reactions of an embodied human with the world, including the environment and objects and beings in the world," and the related idea of designed experiences as "a human attempt to structure an environment to create affordances for a human participant."

Central to the idea of interactivity is the concept of control, either of elements of the physical world or of information. In the context of advertising, Bezjian-Avery and Calder (1998) explain that, "Whereas in traditional advertising, the presentation is linear and the consumer is passively exposed to product information, for interactive advertising, the consumer instead actively traverses the information. The pieces of information the consumer sees depends on where the consumer wants to go."

Interactivity is a complex and multidimensional concept and there is little agreement on a specific set of conceptual and operational definitions related to it (much of the discussion and debate is recent, prompted by the development of advanced interactive technologies such as virtual reality). However, we need to establish an understanding for the context of this discussion; therefore, following Heeter (2000), Steuer (1995), and Lombard and Ditton (1997), we define interactivity as a characteristic of a medium in which the user can influence the form and/or content of the mediated presentation or experience. It is not dichotomous (a medium is not just interactive or not) but can vary in degree (from not interactive to highly interactive) as well as type (different aspects of the form and/or content that can be influenced by the user).

The degree to which a medium, or a mediated experience, can be said to be, and will likely be perceived as, interactive depends on (at least) five subsidiary variables.

The first variable is the **number of inputs from the user that the medium accepts and to which it responds**. Biocca and Delaney (1995) discuss a variety of user inputs, including voice/audio input (e.g., speech recognition systems that allow a computer to accept and respond to voice commands), haptic input (e.g., television knobs and buttons and computer mice, joysticks, wands, etc. that record user commands via object manipulation), body movement and orientation (kinetic) input (e.g., data gloves, body suits, and exoskeletons that translate body movements into electronic signals a computer can use to "fit" the user in a virtual environment), facial expressions and eye movements, and even psychophysiological input (e.g., heart rate, blood pressure, muscle tension, skin resistance, and brain waves could be input to a computer for mood management or enhanced mediated interpersonal communication); see Biocca and Delaney (1995) for a complete discussion. The extent to which each of these media input channels contributes to interactivity has not been demonstrated.

The number and type of characteristics of the mediated presentation or experience that can be modified by the user also help determine the degree to which a medium can be called interactive. Steuer (1995) identifies the dimensions of temporal ordering (order of events within a presentation), spatial organization (placement of objects), intensity (of volume, brightness, color, etc.), and frequency characteristics (timbre, color). Others might include size, duration, and pace. Heeter (1992) suggests that a highly responsive virtual environment is one in which many user actions provoke even unnatural responses (e.g., entering a room produces verbal or musical greetings or rain). While it remains unclear which modifiable characteristics are most important, a greater number of the characteristics should generate perceptions of greater interactivity.

A third variable is the **range or amount of change possible in each characteristic of the mediated presentation or experience**. Interactivity is enhanced by expanding the degree to which users can control each attribute of the mediated experience. For example, in a highly interactive virtual environment the user can look out in any direction; move over

large distances in each one; proceed at any pace and in any sequence desired; pick up, feel, and move many different objects each with different textures; and change the type and volume level of ambient sounds. In a different context, the larger the vocabulary of a computer speech recognition system (i.e., the more words it recognizes and to which it responds appropriately) the more interactive is the computer use experience.

A fourth variable is the **speed with which the medium responds to user inputs**. The ideal interactive medium responds in "real time" to user input; the response or lag time is not noticeable. Although it accepts and responds to only audio input and uses only a limited frequency range, the telephone is highly interactive in terms of this criterion because interactions via telephone seem to occur in real time (except with calls over exceptionally long distances). With bandwidth limitations and explosive growth in the number of users, the issue of response time is an important consideration on the World Wide Web (often derisively called the World Wide Wait). The computational difficulty of processing inputs related to the user's position can cause even an advanced virtual reality system to present images and sounds that lag quite noticeably behind user movements and the problem is recognized as an important one: Heeter (1992) notes that "based on their own experiences and observations of others," when forced to choose between "responsiveness to motion and resolution of images, [virtual reality] developers are choosing responsiveness as the more important factor" [p. 263]). See Steuer (1995) and Zeltzer (1992) for further discussion of the role of response time.

A final variable that may be important for interactivity (and certainly is for presence - see below) is the **degree of correspondence between the type of user input and the type of medium response**. Steuer (1995) suggests that the "mapping" between these two can vary from being arbitrary (e.g., pressing a sequence of keys on a keyboard to adjust a visual display) to natural (e.g., turning one's head in a virtual reality system to see the corresponding part of the environment). Using "our familiar sensorimotor skills to manipulate virtual objects directly by means of whole-hand input devices" may lead to perceptions of greater interactivity, and "naturalness," than "writing programs, twisting knobs, or pushing a mouse to accomplish the same task" (Zeltzer, 1992, p. 129; see also Bricken, 1996; Held & Durlach, 1992; Sheridan, 1992).

Interactive Advertising: The Role of Presence

It is widely assumed that interactivity can make advertising more effective (e.g., Johnson, 2000). However, little is known about why this should be the case, and thus how the characteristics of a medium or an ad within a medium should be designed to make advertising more effective.

In whatever way interactivity is important, its effect depends on one or more intervening variables:

Interactivity in a medium or ad Persuasion

One thing interactivity is thought to increase is the sense of 'presence,' and presence is thought to lead to a variety of effects which include enjoyment and persuasion, primary goals of advertising. Therefore presence, and research and theory concerning presence, may serve as a useful guide to understanding and marshaling the use of interactivity in advertising to maximum effect.

"Presence" is a shortened version of "telepresence," a term first used by Marvin Minsky (1980) to refer to teleoperation technology that provides the user with a "remote presence" in a different location via feedback systems that allow him/her to "see and feel what is happening" there. The term was adapted and shortened when the journal Presence (MIT Press) was founded in 1992 to provide a forum for "current research and advanced ideas on teleoperators and virtual environments" (subscription request page, v. 2, no. 3). In an extensive 1997 literature review, Lombard and Ditton defined presence as "the perceptual illusion of nonmediation." Following an electronic discussion among an interdisciplinary group of scholars interested in presence and related phenomena in the spring of 2000, a detailed explication of the term was developed (Lombard, 2001a):

Presence (a shortened version of the term "telepresence") is a psychological state or subjective perception in which even though part or all of an individual's current experience is generated by and/or filtered through human-made technology, part or all of the individual's perception fails to accurately acknowledge the role of the technology in the experience. Except in the most extreme cases, the individual can indicate correctly that s/he is using the technology, but at *some level* and to *some degree*, her/his perceptions overlook that knowledge and objects, events, entities, and environments are perceived as if the technology was not involved in the experience. Experience is defined as a person's observation of and/or interaction with objects, entities, and/or events in

her/his environment; perception, the result of perceiving, is defined as a meaningful interpretation of experience.

The explication goes on to identify several potential types or dimensions of presence, using the labels associated with them by different authors.

"Spatial presence" (or "physical presence," "a sense of physical space," "perceptual immersion," "transportation, " or "a sense of being there") occurs when part or all of a person's perception fails to accurately acknowledge the role of technology that makes it appear that s/he is in a physical location and environment different from her/his actual location and environment in the physical world. For example, a variety of stimuli provided by a virtual reality system can cause the user to perceive that s/he is moving through and interacting with the environment created by the technology rather than the user's actual physical environment; the user may comment, **"It seemed as if I was someplace else!"**

"Perceptual realism" (or "sensory presence," "naturalness," "ecological validity", or "tactile engagement") occurs when part or all of a person's perception fails to accurately acknowledge the role of technology that makes it appear that s/he is in a physical location and environment in which the sensory characteristics correspond to those of the physical world, i.e., s/he perceives that the objects, events, and/or people s/he encounters look, sound, smell, feel, etc. as they do or would in the physical world. Note that although technology-generated environments that look, sound, etc. the same as environments in the physical world are more likely to evoke this, and perhaps other, type(s) of presence, it is the *perception* that the sensory characteristics of the technology-generated environment and those of the physical world correspond that defines this type of presence rather than the *actual* correspondence of the characteristics. For example, because it provides large, high resolution, three-dimensional images and high fidelity, dimensional sound, a 3D IMAX film presentation can cause the viewer to perceive that s/he is in an environment that looks and sounds as the viewer believes it does or would in the physical world; the user may comment, **"It seemed so real!"**

"Social realism" occurs when part or all of a person's perception fails to accurately acknowledge the role of technology that makes it appear that s/he is in a physical location and environment in which the social characteristics correspond to those of the physical world, i.e., s/he perceives that the objects, events, and/or people s/he encounters do or could exist in the physical world. Again, although technology-generated environments in which objects, people, and events act as they do in the physical world are more likely to evoke this, and perhaps other, type(s) of presence, it is the *perception* that the social characteristics of the technology-generated environment and those of the physical world correspond that defines this type of presence rather than the *actual* correspondence of the characteristics. For example, aA well written, well acted, filmed version of events that have occurred in the physical world can lead the film viewer to perceive that s/he is in an environment in which objects, events, and people act and/or respond in the way(s) the viewer believes they did or would in the physical world; the user may comment, **"It seemed so realistic!"**

"Engagement," (or "involvement," or "psychological immersion") occurs when part or all of a person's perception is directed toward objects, events, and/or people created by the technology, and away from objects, events, and/or people in the physical world. Note that the person's perception is not directed toward the technology itself but the objects, events and/or people the technology creates. For example, a virtual reality system, 3D IMAX film, or a well written and acted film can cause the user or viewer to devote all of her/his mental effort to processing the stimuli created by the technology and ignore stimuli (e.g., other people, equipment, furniture, etc.) in her/his actual physical environment; the user may comment, **"It was so involving!"**

"Social presence" (distinct from social *realism*) occurs when part or all of a person's perception fails to accurately acknowledge the role of technology that makes it appear that s/he is communicating with one or more other people or entities. There are three distinct forms of social presence.

"Social actor within the medium" and "parasocial interaction" occur when part or all of a person's perception fails to accurately acknowledge the role of technology in her/his perception that s/he is engaged in two-way communication with another person or people, or with an artificial entity (e.g., a computer "agent"), when the communication is in fact one-way, from the technology to the person without feedback from the person to the other entity(ies). For example, those who create and appear in television programs use a variety of techniques (e.g., direct address and sincerity) that can lead the viewer to feel that s/he is interacting with and/or in a "relationship" with the personalities and characters s/he encounters and the same techniques can be used by a computer "character"; the user may comment, **"It seemed like we were interacting!"**

"Shared space (transportation)" occurs when part or all of a person's perception fails to accurately acknowledge the role of technology in her/his perception that the person or people with whom s/he is engaged in two-way communication is/are in the same physical location and environment when in fact they are in a different physical location. For example, advanced video-conferencing systems can create for a user the illusion that s/he is in a face-to-face meeting in which all the participants are in the same room; the user may comment, **"It felt like we were all together there!"**

"Medium as social actor" occurs when part or all of a person's perception fails to accurately acknowledge the role of technology in her/his perception that s/he is engaged in communication with another entity when in fact the other entity is merely a technology or medium (e.g., computer, television, etc.). For example, the ability of a computer to interact with a user in real-time, use human (rather than machine or technical) language, and fill a social role (e.g., bank teller or teacher) can lead even an experienced user to follow social norms (e.g., regarding gender stereotypes and third-party evaluations) that are usually reserved for human-human interaction; the user might not be aware of this phenomenon, but if s/he is, s/he may comment, **"It seemed like a person!"**

Presence scholars are working to determine which of these dimensions of presence are valid and distinct, and to develop instruments, including paper-and-pencil questionnaires, to measure them (see Lombard, 2001b for a discussion).

Among the many likely effects of presence are increases or decreases in physiological arousal, feelings of self-motion (vection), and motion sickness; enjoyment, empathy, connectedness (involvement, mutuality, engagement) with other people, and parasocial relationships; learning, improved task performance, and skill training; a number of different emotional responses; persuasion; and some potentially negative effects including psychological desensitization and distorted memory and social judgments.

Several characteristics of a medium's form and content (as well as characteristics of the media user such as age, gender, prior experience with a medium, and willingness to suspend disbelief) are said to increase users' sense of presence:

Medium form variables

Interactivity

Use of voice

Number and consistency of sensory outputs

Visual display characteristics

Image quality or resolution

Image size

Proportion of visual field (combination of image size and viewing distance)

Use of motion and color

Dimensionality (e.g., 3D technologies such as IMAX, 3D borders on web

graphics)

Use of subjective camera techniques (e.g., direct address, point-of-view

movement)

Aural quality or fidelity

Aural dimensionality (e.g., surround-sound)

Volume level

Output for other senses (e.g., smell, touch, movement)

Obtrusiveness of medium

Use of live (versus recorded or constructed) material

Number of people/users

Content variables

Social realism

Use of media conventions

Nature of task or activity

While presence is often discussed in the context of advanced (or even experimental) media such as 3D IMAX films and virtual reality, it has also been shown to occur with traditional media available to advertisers today, such as standard broadcast television (e.g., Lombard, Reich, Grabe, Bracken, & Ditton, 2000) and personal computers (e.g., Nass, Moon, Fogg, Reeves, & Dryer, 1995). Some of the critical cues that apparently lead to presence responses are available in these media, or could, with relative ease, be made available. A primary example is the World Wide Web: it provides interactivity cues, albeit at a primitive level, with text messages that thank the user for "visiting" a site, menus and indexes that allow the user to choose where to "click" and thus which links to follow and to control the pace of the experience. The use of direct address, by celebrities or animated characters (e.g., Jeeves on the Ask Jeeves web site (http://www.ask.com) and

the virtual newscaster Ananova (http://www.ananova.com), carefully chosen language and other social cues (e.g., made available via voice and video), can help make consumers feel that an advertising appeal is personalized by giving them a connection with the product, company, company representatives, etc.

The question of course is how to go about creating advertising for traditional, new, and emerging media to take advantage of their potential to evoke presence, and thus engagement, enjoyment, and persuasion.

In Table 1, and in the discussion below, we describe how those who design advertising experiences for consumers might take advantage of the known and hypothesized connections between interactivity and presence, and between presence and persuasion. Note that there is considerable overlap in the characteristics of interactive advertising that are likely to evoke the different types of presence; the presentation that follows highlights those characteristics that serve to differentiate the types of presence.

Table 1. Presence and Interactive Advertising

Dimensions of Presence	Exampleof interactive advertising	Content/Formal Features	Interactivity
Spatial Presence "It seemed as if I was someplace else!"	Ad visually represents an environment (e.g., store, office, city street) for shopping/seeking information about product	Point-of-view movement Language of transportation (e.g., "thanks for coming") Text and audio only as it relates to the environment. Minimal use of editing/change of scene (not initiated by user)	Number/Type of user Inputs: Body movement Visual orientation Number/type of characteristics modified by user: Pace of movement determined by user Range in each characteristic Wide view Choices of movements/ destinations Speed Minimize lag Matching user input/medium response
			Joystick to move Mouse movement
Perceptual Realism "It seemed so real!"	Visuals of products that sound, feel, and/or look "real."	Photorealistic images. Use of "real" looking people (rather than animated representations). Appropriate ambient sounds. Image takes up entire screen.	Number/type of user inputs: Haptic Smell Audio Number/type of characteristics modified by user: User can pick up/move/drop/ use objects Range in each characteristic: Texture of objects Variety of sounds/voices Speed: Minimize lag (vital) Speedy responses Matching user input/medium response: Forced feedback. Appropriate audio/written output in response
Social Realism "It seemed so realistic!" (how people and objects act)	Visuals of products that act/respond "realistically"/ believably.	Characters, products act as we'd expect. No outrageous claims Consistent rules followed in the environment Appropriate responses to input. Varied responses.	Number/type of user inputs: Audio Haptic Number/type of characteristics modified by user: Range in each characteristic: Type and volume of ambient sound Extensive vocabulary of speech

			recognition system Speed: Minimize lag (vital) Matching user input/medium response: Appropriate responses (vital)
Engagement "It was so involving!"	Web site including a virtual ride or tour of an environment for the user. Visually and/or aurally appealing banner ad.	Point-of-view movement Vibrant colors Welcoming characters Stimulating music	Number/type of user inputs: Visual Audio Haptic Smell Number/type of characteristics modified by user: Intensity of sound Color and brightness Range in each characteristic Large number of objects or people to interact with. Type and volume of audio Variety of colors Speed: Fast-paced virtual environment.
Social Presence Parasocial interaction:"It seemed like we were interacting!" _____ **Shared space: "It felt like we were all together there!"**	Company mascot/ representative to share information. _____ Talk to salesperson via web camera. _____	Friendly/informal language Sincerity Simplicity Direct address Steady (non-shaky) video	Number/type of user inputs: Visual Audio Body Movement Gesture Eye Gaze Personal identification technology Number/type of characteristics modified by user: Character responds to user actions when appropriate. Range in each characteristic: Extensive vocabulary of speech recognition system Speed: Minimize lag Matching user input/medium response: Use of social feedback Talk to and be talked to; type and be typed to Say anything and get wide range of responses
Medium as social actor: "It (e.g., a computer) seemed like a person!"	Special cases: A program that takes over the computer - and "interacts" with user.		

Designing Presence-evoking Interactive Advertisements

As indicated in Table 1, each type of presence suggests different (although in many cases related) design considerations. In this section we describe examples of (hypothetical) interactive advertising messages that might result from applying extant knowledge regarding presence. In most cases, the messages (or less elaborate version of them) could be created with software that is currently widely available and affordable. The examples are not meant to be exhaustive but rather to illustrate the general principles.

Spatial presence

A website for a book store can feature an image of a store entrance with a "sign" that reads "Enter here to shop at XXX." Once the user clicks on this doorway, s/he uses the mouse to "move" through the store. S/he can move toward objects/products that s/he is interested in and take a closer "look" at them. Price and other details about the product can be made part of the environment (e.g., on a "table" or "sign" in the "store"). If more detail is needed, s/he can move toward a (computer-generated) salesperson to ask questions. While the virtual "shopping cart" concept is already in use, the image of

the cart can be made available to the user while s/he is "in" the "store" and s/he can be given the opportunity to "go to" a virtual "check-out counter" to pay for purchases. Rather than simply following a link to another web site the user can "leave" the "store" via a "virtual" doorway.

Perceptual realism

A website for a car manufacturer can present a detailed, photorealistic image of a car sitting in a large garage on a suburban street. Using a force-feedback mouse the user can "move around" the car to view it from different perspectives, "open" the hood and look at the engine, "open" the trunk and look at the storage space, "open" a door and "sit" inside; in each case s/he can "touch" surfaces (e.g., the interiors) that "feel" as they would on the actual car, and look at details (e.g., engine construction, dashboard, etc.) that look as they would on the actual car. The experience could be enhanced with ambient sounds (e.g., of chirping birds and barking dogs in the distance) and, using new software that provides smells to Internet users ("Scratch and Sniff," 1999), the familiar smells of a new car and freshly mowed grass.

Social realism

The website for a maker of home appliances can allow visitors to actually "use" the products. For example, the user can interact with a coffee pot. S/he "turns it on" by touching the power button and a light illuminates, just as it would if s/he were using the appliance in a "real" setting. As the coffee pot continues to operate the user can hear it percolating, hear and see the fresh coffee drip into the glass pot, perhaps smell the aroma (see previous example), and pour a cup when it is ready. This type of ad provides a more nuanced experience of actually using the product rather than simply reading about it or viewing an image. To make for a more socially realistic environment, the web site could include the image of a home in which the user can move through the environment (using the mouse) and search for the appliances in which s/he is interested. In the coffee pot example, s/he would be experiencing the product in a home kitchen setting.

Engagement

A banner advertisement for a resort attracts the user with vibrant colors and distinctive graphics and font. The banner is designed to represent a door or window with the words "Come, visit our resort" written across the top border. Once the user clicks on the banner, s/he is taken on a virtual tour in which s/he views, through point of view movement camera shots, the various areas and activities within the resort. The image on the screen represents what the user could see from inside a golf cart as s/he passes a golf course, tennis courts, a beach, a swimming pool and bar area. The user can hear the voice of the tour guide describing all of the sights, as well as lively background music and the voices of guests greeting her/him as s/he passes by. All of these features are designed to create an exhilarating and involving tour.

Social Presence

Parasocial interaction

A website for a real estate office includes an office setting and the image of a real estate agent with whom the user can seem to interact. The agent uses direct address, looks at the user, and uses first- and third-person dialogue ("I think we're the best real estate organization in this area" and "What kind of home are you looking for?"). This experience makes the user feel as though s/he is talking with a real person.

Shared Space

The website described in the previous example can take it a step further and allow the user to communicate with a live representative via the website using a web camera and high bandwidth connection. Rather than the typical dialogue box used for instant messaging, the web site would use an office setting so the user feels like s/he is in the room with the agent.

Medium as Social Actor

A downloadable or web accessible program can be created that seems to "take over" the computer and allow the user to interact not with elements of a program but with the computer itself; the "computer" could then try to influence the user, e.g., "I'm getting old and tired," "I'd really like to have a XXX peripheral," etc. This would be particularly effective when dealing with products related to the computer or other technology itself, but the idea could be extended to advertising appeals for other products as well.

Conclusion

As communication technologies evolve, becoming more interactive, personal, and sophisticated, advertising is being forced to evolve as well. Early research and theory regarding the concept of presence provide a valuable framework for developing effective advertising techniques and messages in this new media world.

Most of the presence-based guidelines for the design of new media advertising set out in Table 1, and in the examples that follow it, involve the use of sophisticated but currently

available web- and PC-based technology. It's important to note, however, that even less sophisticated (and costly) techniques are likely to evoke presence and its desired effects. While considerable additional research is needed, it is clear that very basic cues (e.g., direct address "camera" techniques, presence-related language, primitive forms of interactivity) are all that are necessary to evoke presence. On the other hand, it is important to consider the future: We foresee that this intersection of interactive advertising and presence will become increasingly relevant as technology (especially the foundation of much of it, bandwidth capacity) quickly evolves and the use of realistic, dimensional imagery, artificial intelligence, and virtual reality become more common. One day in the not-so-distant future, consumers may use a dedicated room in their homes to interact, using all of their senses, with real people and highly sophisticated (and seemingly nonmediated) technology-generated characters and environments, something approaching the ultimate VR and artificial intelligence systems portrayed in science fiction (e.g., *Star Trek*'s Holodeck and Data character). In that world, advertisers will be able to offer consumers any experience with their product and any interaction with their company's representatives (real or technology-based) that they choose.

The potential of current and future technology to enhance consumers' media experiences is exciting, for them and for advertisers who want to design effective persuasive messages. However, there are clearly ethical dilemmas. Presence-evoking media advertising gives new meaning to "deceptive advertising." We hope to see these technologies used to provide users with a more enjoyable media experience and with more choices as consumers. We do not hope to encourage the use of presence-evoking interactive advertising to merely create the illusion of choice - a very undemocratic ideal.

Even the definitions of interactive advertising and of presence are still being discussed and debated by researchers and practitioners, and our understanding of phenomena related to each and of the connections between them are at a very early stage. This presents a myriad of opportunities and challenges for all of us. Through carefully designed and coordinated programmatic studies, researchers can help us better understand what interactivity is, which factors are most important in generating perceptions of interactivity, what presence is, its antecedents and consequences, and how it can provide the basis for effective advertising. Researchers also have an ethical obligation to explore the potential negative effects of interactive advertising, including distorted perceptions and memories about the "real" world; they can also help develop and test the new "media literacy" materials that will be needed to overcome such effects. Until our knowledge is more complete, advertisers and technology developers will have to move ahead cautiously, trying new things and testing for the desired effects. And consumers can and should play a role as well: we need to let advertisers know what we like and don't like, what we want and don't want.

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