Examining the dynamic effects of social network advertising: A semiotic perspective

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A R T I C L E   I N F O

1. Introduction

With the development of electronic commerce, social network advertising has emerged as a new marketing strategy. E-marketer (emarketer.com) shows that the worldwide social network advertising market reached $32.97 billion in 2016; steady growth is expected in the future (Emarketer, 2016). Social network advertising relies on social information in generating, targeting, and delivering marketing communications (Wu, 2014). Using comments, sharing, and other functions, users can participate in communication (Azeem and Haq, 2012). Therefore, understanding the effects of social network advertising is essential to an advertiser's marketing strategy.

For both marketers and academics, it is of interest to understand the social network advertising effects. Nonetheless, prior studies of social advertising's effects have tended to focus on using page design and marketing mix theories separately (Steiner and Lavidge, 1961; Charaf et al., 2013). From one point of view, numerous empirical studies used page design or marketing mix elements as independent variables to examine the effects of advertising (Huang et al., 2012). From another perspective, the group behaviors in social network, such as comments and sharing, can also affect social network advertising's effects (Chang, 2013; Duffett, 2015). In social network advertising, all page design, marketing and group behavior elements are integrated within a social network (Huang et al., 2013). It is difficult to analyze which element will best create a particular effect (Mir, 2014). Current researchers have not paid proper attention to implementing an integrated framework in social network advertising.

To fill the research gap, we examined the dynamic effects of social network advertising from a semiotic perspective. Since the 19th century, semiotics has been seen as the study of signs and their use to convey meaning (Petofi, 2010). Semiotics has been defined as "being concerned with everything that can be taken as a sign" (Eco, 1976). In recent history, semiotics developed along two significantly different lines, one traceable to Swiss linguist Ferdinand de Saussure and the other to American philosopher and scientist Charles Sanders Peirce (Mingers and Willcocks, 2014). The primary focus of Saussure's theory is its emphasis on language as a system of signs (Eco, 1976). In contrast to Saussure's theory, Peirce was primarily interested in the process of semiotics (Mingers and Willcocks, 2014). Peirce and Hartshorne (1931) introduced the interaction of three abstract subjects in the semiotic triangle: the sign,

its thought, and its reference as a core of human cognitive activities.

In this paper we introduce the semiotic triangle in study the effects of social network advertising primarily for the following reasons. First, the semiotic triangle can create an integrated meaning framework to explain the dynamic effects of social network advertising. Because of a lack of the production of meaning in page design and marketing mix theories, prior studies cannot express meaning in social network advertising (Chatterjee et al., 2003; Lewis and Reiley, 2009). According to the semiotic triangle, every meaning process can be analyzed as a semiotic system. In social network advertising, when advertisers communicate with users, they operate on the basis of an agreement about the meaning of various material things, such as page design images and marketing mix. Based on the semiotic triangle, the meaning of social network advertising is the result of the dynamic interaction between sign, thought and referent, which is an active process (Hodge and Kress, 1988; Wu, 2014). Second, the semiotic triangle provides insights into users' mental activity brought on by social network advertising. Previous studies ignore the role of users' mental activity (Mir, 2014). The communication processes in social network advertising, such as comments, forwarding and praises, need the semiotic triangle to express users' mental activity. The semiotic triangle highlights the process that occurs between the user and advertising in the development of meaning (Dong et al., 2014). Because of these advantages of the semiotic triangle, we examine the effects of social network advertising through the semiotic triangle in this paper.

Because of user-generated content, social network advertising is more dynamically social than online advertising (Tu, 2002). The semiotic triangle lacks measurable variables to reflect the users' interaction mechanism in a social network. Therefore, this study includes social facilitation and social presence in the semiotic triangle. Social facilitation is the tendency for people to perform differently when in the presence of others than when alone (Zajonc, 1965). Social facilitation can describe how a group's behavior can impact individual users in the social network. Meanwhile, social presence is the "ability of a communication medium to allow group users to feel the presence of the other group users and the feeling that the group is jointly involved in communicative interaction" (Tu, 2002). Social presence can describe a user's mental activity based on the interactive environment of social networks. Because the user-generated content in a social network may influence a user's behavior intention in different time periods, this study describes the processes as dynamic effects, which can offer novel insights of dynamic nature on social network advertising communication.

The remainder of this paper is structured as follows. The next section presents recent literature. After that, we discuss the logical framework of social network advertising's dynamic effects through a semiotic perspective. An overview of the methodology, data analysis, and results are then reported. After that, findings and implications, limitations and future research are discussed.

2. Literature review

2.1. Social network advertising effect through a semiotic perspective

The semiotic triangle provides researchers with a means of thinking about the relationship among a sign, a thought and a reference. A sign can be defined as the word that calls up the referent through the mental processes. A thought can be defined as the realm of memories of past experiences and scenes. A referent can be defined as an object, which can be perceived as an impression in the field of thought (Ogden and Richards, 1989). More simply, the semiotic triangle can be explained in the sense that a sign uses X to represent Y to convey a certain meaning. Though X is not Y itself, it still can covey certain meaning, for it can be used to represent Y. For example, the word "car" can be seen as a sign. The steps of the semiotic triangle are as follows. First, the car, as matter, evokes a writer's thought. The writer uses the word "car" to represent a material to covey certain meaning. Second, the writer attributes the matter to the word "car". Thus, the word "car" can be seen as a sign. Third, the word "car" can evoke a reader's thought. The reader's thought can be seen as the notion that a car is the material, which is made up of some sizes, shapes and colors. Fourth, the reader refers the word "car" back to the matter. The reader writing the word "car" can be seen as a referent. Therefore, one can note that the word "car" itself is an arbitrary combination of three letters that conveys the concept of "car" through the form of written expression.

Recently, the semiotic triangle has been used in online marketing, particularly in social network marketing (Mingers and Willcocks, 2014). Fig. 1 depicts the analysis of social network advertising's dynamic effects through a semiotic triangle perspective (Liu, 2005). For example, an advertising designer wants to release a car advertisement through its social network page. The steps are
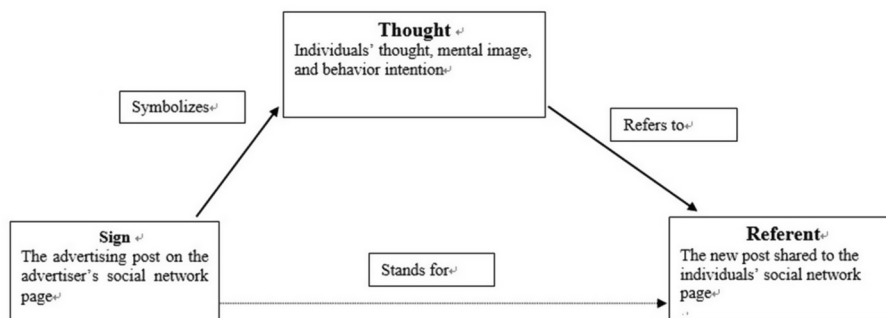
Fig. 1. Analysis of social network advertising dynamic effects through a semiotic perspective.