Chapter 11
Electronic Word of Mouth and Consumer Generated Content:
From Concept to Application

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ABSTRACT

With the Internet, even ordinary Web users can conveniently create and disseminate media content. The notion of User-Generated Content (UGC) or Consumer-Generated Content (CGC) captures the user-as-producer feature and refers to content that is not generated or published by professionals on the Internet, unlike traditional media. An important type of online advertising that makes use of CGC is eWOM (electronic word-of-mouth) advertising. Defined in terms of situations where consumers refer products or services to other consumers on the Internet, eWOM is closely related to CGC and can be applied to many online forums for UGC and CGC. With this in mind, this chapter seeks to define and categorize eWOM based on different online platforms of CGC, review existing research in eWOM, and, finally, extend the use of eWOM to health promotion by examining characteristics of eWOM in an online breast cancer bulletin board.

INTRODUCTION

Web 2.0 and other online applications have transformed mass communication from a one-way to a two-way communication system. With the Internet, even ordinary Web users can conveniently create and disseminate media content. The notion of User-Generated Content (UGC), or Consumer-Generated Content (CGC), captures the user-as-

producer feature. Since UGC and CGC are more trusted by consumers - and more persuasive - than traditional advertisements (Bickar & Schindler, 2001; Goldsmith & Horowitz, 2006; Okazaki, 2008), marketers are trying to become part of the communication process and engage consumers by making use of CGC to accomplish advertising goals. For example, online retailers like Amazon.com and Walmart.com invite consumers to write product reviews, whether positive or negative, to assist other consumers with buying decisions.

Ebay.com builds its business on a reputation ranking system based on buyers' and sellers' comments. To engage consumers, Oscar advertiser Cottonelle toilet paper asked Oscar viewers to vote and chat online about whether they install their rolls "under or over" (Horovitz, 2010). Many companies upload their TV commercials to YouTube.com, provide a Facebook fan page, or subscribe to a Twitter account, all of which are driven by peer-to-peer communications. These examples suggest that CGC can occur in a variety of online formats (e.g., a corporate website versus a Facebook fan page), and can consist of a multitude of features or characteristics.

Closely related to the application of CGC in the digital advertising "mix" is the concept of eWOM. Despite the popularity of this emerging tool, few studies have systematically examined the literature on eWOM via CGC. The definitions of eWOM often overlap to include viral advertising, eWOM, and CGC (Hennig-Thurau et al., 2004). Additionally, research on eWOM ranges from seeking- and providing- behaviors of eWOM to (e.g., Fong & Burton, 2006; Lieberman & Goldstein, 2005; Nelson & Otnes, 2005), eWOM motivations (e.g., Goldsmith & Horowitz, 2006; Sun, Youn, Wu, & Kuntaraporn, 2006), eWOM types and format (e.g., Thorson & Rodgers, 2006), features of eWOM advertising (e.g., Bickar & Schindler, 2001; Evans et al., 2001; Okazaki, 2008), and consumers' psychological responses to eWOM advertising (e.g., Benedicktus & Andrews, 2006; Senecal & Nantel, 2004). Despite the growing number of studies on eWOM, it clear unclear what may be missing in the bigger eWOM picture, and what (if anything) should be examined further in research to offer a more comprehensive understanding of eWOM. In other words, the bulk of literature on eWOM needs to be organized under an integrated model, which can be tested and developed by researchers and practitioners for the purpose of maximizing this new form of advertising.

Since the Interactive Advertising Model (IAM) was proposed with features of interactive advertising in mind, andresearch has drawn upon several paradigms or schools of thoughts (Rodgers and Thorson, 2000), this chapter chose to apply the Interactive Advertising Model (IAM) to categorize existing literature on eWOM. The three paradigms used in the IAM are the functional school, the structural school, and the school of information processing. The functional school examines interactive advertising as a function of advertising effectiveness; the structural school investigates the structural features of eWOM; and, the information processing school deals with the underlying psychological processing of eWOM messages (Rodgers & Thorson, 2000).

Using this theoretical framework, this chapter fulfills three major goals: 1) define and categorize eWOM based on different online platforms of CGC; 2) review and contrast existing research on eWOM; and, 3) extend the use of eWOM to health promotion by examining characteristics of eWOM in an online breast cancer bulletin board.

DEFINITION AND TYPES OF EWOM

CGC and eWOM are two closely related concepts. CGC is defined as Internet content that is generated and published by everyday consumers, not media or communications professionals. In turn, eWOM is characterized as "any positive or negative statements made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet" (Henning–Thurau et al., 2004, p. 39). From the definitions we can see that, eWOM is a specific type of CGC about products or companies.

Marketers intentionally initiate various types of eWOM, such as viral marketing, viral advertising, and online testimonials, to influence consumers' attitudes and behaviors (Golan & Zaidner, 2008;

Stauss, 1997). Therefore, eWOM is often simply characterized as a form of advertising. At the same time, public relations companies have added eWOM to their product offerings to deal with negative online reviews of brands (Rosenwald, 2010). As such, eWOM also fits within the realm of public relations. However, this chapter chose the angle of eWOM as advertising because this perspective best captures various types of eWOM and reveals the influence of eWOM on consumer attitudes and behaviors–which is perhaps more amenable to advertising.

Unlike traditional Business-to-Consumer (B2C) advertising models, an important feature of eWOM is that *consumers* control and create the marketing communication about a given product or service, to a large extent. For commercial groups or companies, changing or influencing eWOM opens up new opportunities for marketing. For example, eWOM within social media is one important type of eWOM. A recent survey by Marketingsherpa showed that most advertising and public relations professionals believe that online discussion among consumers through social media is an effective tool for achieving branding goals, building reputation, and enhancing awareness (Odden, 2009). For example, the Cloud Cult Campaign is one example of how to successfully implement at CGC. Through their E-surance campaign, Cloud Cult utilized Facebook to reach consumers and allow them to view content about their insurance brand, discuss the brand with other consumers, and build online communities (Vorro, 2009). Since the online discussions were essentially about the product and the company, a considerable proportion of CGC was in the form of eWOM throughout the entire advertising campaign, and emotional bonds were created among consumers as the result.

Drawing from this as well as other examples, the authors extend current eWOM definitions to include the emotional as well as the structural aspects of eWOM by proposing this definition: any degree or combination of positive, negative, or neutral comments, recommendations, or any

statements about companies, brands, products, or services discussed or shared among consumers in digital or electronic formats. In this sense, the proposed definition modifies the current definition of eWOM presented earlier in two important ways. First, positivity and negativity are two important aspects of eWOM, but the valence values of eWOM are often beyond a simple dichotomy. Some eWOM could be a mix of positive and negative valences, and some could be essentially neutral, as in the case of a reviewer who writes only facts about the product without any introduction of negative or positive valence. Second, with the wide applications of eWOM in various communication areas, we felt the definition must expand to include these the multitude of applications. For example, in health promotion the consumer is generally a patient and products are typically medical treatments or procedures. These would not typically fall within the traditional definitions of eWOM, yet more diverse forms and understandings should be taken into consideration to gain the broadest possible understanding of eWOM in a variety of contexts and applications as well as with a variety of products, services and consumer types. To illustrate these two modifications, this chapter presents the results of a content analysis of eWOM on a breast cancer bulletin board later in this chapter.

However, it is important to point out that eWOM could be further classified into two broad categories based on different platforms of CGC: eWOM in online feedback systems and consumer review sites, and eWOM on electronic discussion boards, online communities, and online social networking sites. Previous studies have shown that eWOM on these two types of CGC platforms differ in terms of features and roles in the marketing communications mix.

The first type of eWOM is often generated in online feedback systems and consumer review websites. An online feedback system is specifically designed for consumers to exchange their opinions about products and services. For example, many

online e-commerce sites, such as Amazon.com, eBay.com, and Walmart.com invite consumers to write a product comment after a purchase. In addition to consumer comments on retailers' websites there are also third party review websites such as TripAdvisor.com, which claim to provide "unbiased" reviews for hotels and vacations.

Since the major purpose of online feedback systems and review websites is to provide information to consumers for product evaluation, most CGC in this form is considered eWOM. As such, consumer comments are directly linked to the marketing of products and services and closely relate to the influence of eWOM on brand reputation (Dellarocas, 2003), trust (Benedicktus & Andrews, 2006), attitudes toward products (Bickar & Schindler, 2001), and consumer decision-making (De Bruyn & Lilien, 2008), to name a few.

A second type of eWOM occurs on electronic discussion boards, online communities, and online social networking sites. Electronic discussion boards and online communities are considered online platforms, which facilitate communications among consumers with shared interests and experiences. Social networking sites are designed for particular segments of the population (like business professions or working moms) to maintain and expand interpersonal relationships with friends and relatives. For example, although the average age of an individual user is increasing, Facebook.com was originally designed for young people to share pictures and life experiences through connections. LinkedIn.com helps professionals to maintain business relationships. Given the growing popularity of these social networking sites, this style of content as well as its social connectivity format is reaching users beyond the initially planned target segment.

Electronic discussion boards, online communities, and online social networking sites create a more natural setting for eWOM advertising. Researchers have identified several basic and important aspects of eWOM for these contexts, which include an informational aspect, an emotional aspect, and valence value of informational and emotional eWOM (Dillard & Nabi, 2006; Evans et al., 2001; Fong & Burton, 2006; Lieberman & Goldstein, 2005). For example, upon returning from a vacation, people may want to share their experience with friends on Facebook. They may post photos and talk about the details of their trip, including the hotel they stayed at, restaurants they ate at, activities they participated in, and so on. Informational eWOM could express how clean the hotel was, whether the staff was courteous, whether they liked the swimming pool, etc. Emotional eWOM may demonstrate how the individual felt when they were enjoying the sunset in the café, how happy they were when they danced with friends at a local bar, or how funny a cab driver was during the trip. Emotional eWOM could also be negative (Dillard & Nabi, 2006; Lieberman & Goldstein, 2005) and can have degrees of negativity as well as positivity.

As is shown in the above examples, since personal experience is frequently exchanged on electronic discussion boards, in online communities, and online social networking sites, emotion is an important part of eWOM on those platforms. Unlike the first type of eWOM, which is largely information-oriented, the influence of emotional eWOM on consumers' attitudes and behaviors is a significant issue for the second type of eWOM. Therefore, looking for features that are informational eWOM, emotional eWOM, and their valence value is the foremost task of marketers who want to influence eWOM in a more natural setting for eWOM advertising (Dillard & Nabi, 2006; Evans et al., 2001; Fong & Burton, 2006; Lieberman & Goldstein, 2005).

To summarize, eWOM is a type of CGC. Based on different features and roles of eWOM in the marketing communication mix, there are two major types of eWOM: informational-oriented contexts, such as consumer reviews on online feedback systems and review websites, and more emotionally-oriented contexts in which consumer opinions and comments are shared with friends

and family on electronic discussion boards, in online communities, and on social networking websites. The latter type of eWOM appears in a more natural setting of online communication, and therefore is often a mixture of positive and negative emotions as well as information. If marketers want to use eWOM as an efficient marketing tool, understanding how consumers talk about their products and services is the first and most important step to understanding eWOM, its components, its features, and any potential effects of those components and features. Before undertaking this task, however, it is essential to gain a fundamental understanding of the existing literature on eWOM and to do this, we have organized eWOM studies into the three schools of thought outlined by the IAM, as noted earlier. This next section provides a brief summary.

A REVIEW OF THE EWOM LITERATURE: THREE SCHOOLS OF THOUGHT

In this section, we organize the eWOM literature into three categories by applying the Interactive Advertising Model (IAM). We should point out that studies may overlap categories because studies sometimes use more than one approach or school of thought and, as shown by the IAM, the three schools of thought used here are interralated. Thus, the purpose of the categorization is not to provide a mutually exclusive taxonomy, but to help readers obtain an overall understanding of existing research on eWOM across these schools of thought in an effort to identify potential gaps and opportunities for research in this area.

The IAM perspective is a useful guideline for organizing components and features of eWOM and any related studies. First, different from integrated models of traditional advertising, the IAM includes unique features of interactive advertising such as users' motivations of searching information (Rodgers & Thorson, 2000). Second,

the IAM incorporates three schools of thoughts, which have been used by studies on interactive advertising (Rodgers & Thorson, 2000). Third, the IAM is a model that allows empirical testing, replication, and theoretical development of research on interactive advertising, including eWOM (Rodgers & Thorson, 2000). Thus, we use the IAM as our organizing schema to offer further insights into the eWOM literature.

As shown in Table 1, the three schools of thought that the IAM draws on are information processing and structuralism. The functionalist approach views Internet usage as a function of fulfilling certain purposes and satisfying needs (Rodgers & Thorson, 2000). The functionalist approach to interactive advertising consists of two components: Internet motives and modes (Rodgers & Thorson, 2000). Internet motives refer to the inner "drive" of carrying out an online activity (Rodgers & Thorson, 2000). Internet mode assesses the extent to which an online activity is goal oriented (Rodgers & Thorson, 2000). Under the larger umbrella of the functional approach, lies the uses and gratifications (U&G) approach, which is frequently used in mass communication to identify motives of using the Internet (Rodgers & Thorson, 2000). In addition, LaRose, and Eastin (2004) propose a model of Internet use based on Social Cognitive Theory, which contains motivational factors and other psychological constructs (LaRose & Eastin, 2004). Closely related to the functionalist approach is the second school, which is information processing (Rodgers & Thorson, 2000). The information processing approach examines consumers' psychological responses to interactive advertising, including attention, memory, and attitudes (Rodgers & Thorson, 2000). While both the functionalist and information processing approaches answer the questions of why and how people use the Internet, the third school of thought, structuralism, examines the physical features of interactive advertising (Rodgers & Thorson, 2000). For instance, the structural approach looks at types, formats, and features of interactive advertising (Rodgers & Thorson, 2000)

Table 1. Functionalism, information processing, and structuralism

Func-tional-ism	H. Chiu, Y. Hsieh, Y. Kao, and M. Lee (2007) M. Eastin, and R. LaRose (2003) J. Fong, and S. Burton (2006) R. E. Goldsmith, and D. Horowitz (2006) D. Gremler (2004) T. Hennig-Thurau, K. P. Gwinner, G. Walsh, and D. C. Huang, Y. Shen, H. Lin, and S. Chang (2007) K. O. Jones, B. E. Denham, and J. K. Springston (2006) R. V. Kozinets (1999) R. LaRose, and M. Eastin (2004) S. Rappaport (2007) T. Smith, J. Coyle, E. Lightfoot, and A. Scott (2007) A. Steyer, R. Garcia-Bardidia, and P. Quester (2006) T. Sun, S. Youn, G. Wu, and M. Kuntaraporn (2006)
Infor-mation Process-ing	R. L. Benedicktus, and M. L. Andrews (2006) B. Bickart, and R. M. Schindler (2001) C. Dellarocas (2003) J. Graham, and W. Havlena (2007) K. Hung, and S. Yiyan Li (2007) J. Nail (2007) K. Niederhoffer, R. Mooth, D. Wiesenfeld, and J. Gordon (2007) S. Okazaki (2008) C. Riegner. (2007) S. Senecal, and J. Nantel (2004) K. S. Thorson, and S. Rodgers (2006)
Struc-turalism	P. Mason, and B. Davis (2007)

Functional Aspects of eWOM

Turning again to Table 1, we learn that the functionalism approach to eWOM addresses two questions: "how" or "why" do people write, share or use eWOM advertising? How do Internet users generate and disseminate eWOM? Why do Internet users generate and disseminate eWOM? The first group of studies in this area investigates the "how" questions: opinion seeking- and providing- behaviors on the Internet, and the flow of information in online networks.

Information giving- and seeking- behaviors are defined as producing and eliciting eWOM (Fong & Burton, 2006). When consumers offer their opinions on products or services, eWOM is created. Sometimes consumers voluntarily offer their opinions, and sometimes they are replying to requests for information and recommendation. For example, when one looks for recommendations for cameras on an online discussion forum of photography, most of the feedback is eWOM. Information seeking and providing is an essential part of activities within online communities and online discussion groups. Nelson and Otnes (2005) examined the content on wedding message boards and found that brides-to-be often obtain wedding advice from trusted online communities. Fong and Burton (Dellarocas, 2003) examined two online discussion boards about photography and digital cameras. They found that most of the posts on the American discussion board were recommendation giving, whereas most of the posts on the Chinese discussion board were recommendation seeking posts. They concluded that Americans are more willing to generate opinions about products, namely eWOM, while Chinese consumers are more frequently seeking eWOM opinions. Jone, Denham, and Springston's (2006) study also connected information seeking with demographic features. They found that young women look for breast cancer screening information online more frequently than did middle-aged women.

Electronic word-of-mouth studies have also examined the inner structure of online networks and have examined how eWOM is disseminated among Internet users. First, the importance of opinion leaders in online social networks has been emphasized repeatedly by previous studies (Allsop, Bassett, & Hoskins, 2007; Fong & Burton, 2006; Kozinets, 1999; Stauss, 1997; Sun, Youn, Wu, & Kuntaraporn, 2006). Opinion leaders are participants who have a lot of knowledge on a subject matter and have strong ties with the online community. They frequently participate in online discussions, and can influence the opinions of online community members. People who are willing to try new products, who are experienced with the Internet, and who have strong ties with other online community members are more likely

to be opinion leaders and more likely to generate eWOM (Sun, Youn, Wu, & Kuntaraporn, 2006).

Second, distribution of eWOM within an on-line community is highly concentrated and not randomly distributed among participants with a small number of members posting as much as 20% of the eWOM messages (Steyer, Garcia-Bardidia, & Quester, 2006). These findings suggest that marketers should identify those critical individuals who serve as opinion leaders in the online communities to which they belong, and start a conversation with these leaders to foster a relationship (Steyer, Garcia-Bardidia, & Quester, 2006) that can be used to benefit the brand and brand users.

In addition to answering questions about how eWOM is produced and disseminated, a fairly large proportion of research has sought to understand "why." Why do people seek and provide eWOM? What are their motives? Generally, there are four types of Internet motives: search, communicate, shop, and surf (Rodgers, Wang, Rettie, & Alpert, 2007). Motives for eliciting and producing eWOM identified by previous studies can be broadly broken down into the four categories. Table 2 provides some examples of motives of eliciting and producing eWOM.

Many specific types of motives have been identified by previous studies. Goldsmith and Horowitz (Goldsmith & Horowitz, 2006) revealed motivations for seeking eWOM. People seek eWOM from other consumers when they want to reduce risk, secure lower prices, get information easily, get pre-purchase information, or when they accidentally get or seek (unplanned) eWOM. People may also search intentionally for eWOM because

others do it, because it is as much entertaining as it is informative, or because of offline promotions in traditional media such as TV or newspapers (Goldsmith & Horowitz, 2006). Hennig-Thurau and colleagues (2004) outlined five types of motivations underlying CGC and eWOM articulation: focus-related utility, consumption utility, approval utility, moderator-related utility, and homeostasis utility. Focus-related utility is the utility a consumer receives when adding value to the community through his or her eWOM contribution. Approval utility is consumers' satisfaction that comes from other members' approval. Moderator-related utility is derived from third-party interventions. Homeostasis utility refers to the function of virtual life that rebuilds psychological balance. Antecedents of eWOM-articulation were also identified. The willingness to experiment with new products, experience with the Internet, and Internet social connections are significant predictors of eWOM-articulation (Sun, Youn, Wu, & Kuntaraporn, 2006). Studies also examined motivations of a specific eWOM-related online activity. For example, by interviewing bloggers, Huang, Shen, Lin, and Chang (Huang, Shen, Lin, & Chang, 2007) identified five major motivations for blogging: self-expression, life documenting, commenting, forum participating, and information searching.

Information Processing and eWOM

Turning now to information processing, this category of research has focused on audience effects of eWOM, or how eWOM as a form of CGC influences consumers' attitudes and behav-

Table 2. Motives of eliciting and producing eWOM

Search	Communication	Shopping	Surfing
• Get information easily • Reduce their risk • Get pre-purchase information • Secure lower prices	• Focus-related utility • Approval utility • Internet social connection • Forum participating	• Consumption utility	• By accident/unplanned information seeking

iors (see Table 1). Findings show that eWOM is different from traditional WOM, and is more persuasive than business-to-consumer communication. For instance, Dellarocas' (2003) review of research on online feedback systems argues that an online feedback mechanism is different from traditional WOM since it has the potential to construct large-scale WOM networks. Therefore, it may have greater influence on brand reputation than traditional WOM. Bickart and Schindler (2001) compare the persuasive ability of CGC and corporation-generated product information. Their findings indicate that an online discussion is more persuasive than corporation-generated product information (Bickar & Schindler, 2001).

However, eWOM can influence attitudes in two-ways, positive and negative. For example, Thorson and Rodgers' (2006) study on eWOM within political blogs showed that simply the appearance of a feature, which enables the creation of eWOM and CGC was enough to form positive attitudes toward the political blog (Thorson & Rodgers, 2006). A recent study by Okazaki (2008) involving a mobile-based referral campaign showed that teenagers who heard about a mobile-based campaign from an eWOM source had more positive attitudes toward the campaign than those who learned about it from a website. Graham and Havlena (2007) by measuring the role of eWOM in an integrated promotion with online and offline strategies, argued that an integrated marketing plan should include online strategies, such as eWOM (Graham & Havlena, 2007).

However, as early as in 1997, Stauss (1997) pointed out that eWOM is a double-edged sword. Negative comments as a form of people's collective forces to protest can ultimately hurt a product and a company. For example, after examining the effects of an electronic feedback system on consumer trust, Benedicktus and Andrews (2006) found that several service failures could spread quickly in an electronic feedback system, and as a result consumers lose trust in the company rather

quickly. Hung and Li's (2007) study also showed that the dual dynamics of eWOM posed both opportunities and challenges to marketers since consumers could become more critical toward products, services, and commercial promotions through peer-to-peer communications in online communities.

In addition to attitudes, eWOM may also influence purchase intention. For example, online comments and reviews were found to influence purchase intent for high-involvement products but not for low-involvement products (Riegner, 2007). High "buzz" levels on blogs can drive sales, and therefore are used as an indicator of sales forecasting in the consumer package goods (CPG) industry (Niederhoffer, Mooth, Wiesenfeld, & Gordon, 2007).

To summarize the previous two sections, studies from the functionalism and information processing perspectives add to our knowledge on motives for eliciting and providing eWOM, dissemination of eWOM, and influence of eWOM on consumers' responses. What is still missing from the bigger picture of eWOM is what eWOM "looks like" specifically the types, formats, and features of eWOM. Since knowing structural features of eWOM is the first step for marketers to learn how consumers are creating and talking about their products and services (Buroker, 2009), the structural approach is useful in that enables examination of the specific components, aspects, and features that are present in eWOM communication.

Structural Features of eWOM

The major structural aspects of eWOM include: types, formats, and features. Type refers to the general orientation of the communication about the eWOM product or service discussed. For instance, our earlier review showed that there are political and health-oriented types of eWOM. Format refers to the particular way that eWOM advertising

is created or disseminated, as in the form of an online testimonial or a consumer online review. A feature refers to the distinguish characteristic or characteristics of an eWOM advertising messages. Just as advertisements contain a multitude of features or distinguishing characteristics (like emotional appeals or provocative visuals), eWOM could contain any number of structural features. In this chapter and consistent with our earlier summary, we chose to focus on three structural features: valence features, informational feature, and emotional features of eWOM. Given that so little is known about the particular features that consumers use to write or create eWOM advertising, we chose to focus the remainder of this chapter on examining the presence and practical usage of these three eWOM features.

First, we should note that unlike other forms of interactive advertising (like banner ads or commercial websites) where message structure has been frequently examined (Rodgers & Thorson, 2000), the structural school of thought is less popular among studies on eWOM. Some studies of the functional school of thought have examined the structural features of eWOM as a complement to their major studies (e.g., Hardey, 2001; Lieberman & Goldstein, 2005; and Nelson & Otnesm 2005). However, studies with a primary focus on the structural features of eWOM are few in number and appear much less frequently in the eWOM literature than studies within the information processing and functional schools of thought. An example of one study solely devoted to examining structural features of eWOM is Mason and Davis (2007) who focused on message features that reveal how participants of online discussions positioned and re-positioned themselves in interpersonal communication (Mason & Davis, 2007).

Because of the lack of studies on structural features of eWOM and the significance of such studies in areas where researchers and marketers have limited access (such as a breast-cancer online bulletin boards), this chapter attempts to fill the gap

by presenting a case study of eWOM in an online breast cancer bulletin board. Medical topics such as breast cancer are sensitive, and commercial intervention into breast cancer online bulletin boards may introduce ethical issues, such as conflicts of interest. Because of these restrictions, the existing literature on health-related online bulletin boards focuses on the psychological support aspect and lacks a promotional perspective (Fogel, Albert, Schnabel, Ditkoff, & Neugut, 2002; Gustafson, Hawkins, Pingree, McTavish, Arora, Mendenhall et al., 2001; Hersh, 2006; Lieberman & Goldstein, 2005). However, an analysis of structural features from a promotional perspective can help to determine the features or specific characteristics used by individuals in describing their positive or negative attitudes toward various products and services, which can subsequently used to inform the literature on the various features that may be effective in disseminating eWOM as an effective tool for health promotion and other commercial promotions.

In addition to the value of exploring structural features of eWOM, there is another important reason to present this case study. As pointed out earlier, this focus is consistent with our earlier recommendation to modify the current definition of and extend existing studies on eWOM by focusing on non-traditional marketing contexts–such as health–and by looking at specific informational and emotional aspects of eWOM.

Thus, by analyzing eWOM on a breast cancer online bulletin board, we can extend existing studies in areas that are currently under-researched to enhance knowledge about not only eWOM in a traditional commercial context but also in non-traditional contexts where eWOM is occurring in a more naturalistic environment. Because of the special nature of health issues, the amount of information and the valence of emotion in health-related persuasion are two important aspects of health-related eWOM. First, eWOM provides opportunities to share personal experiences from the

everyday consumers' perspective. Previous studies on health-related online discussions showed that emotions once aroused, set up a general tone for the message, which can also frame information conveyed during the online discussion (Dillard & Nabi, 2006; Lieberman & Goldstein, 2005). Therefore, health-related online discussion provides an excellent case study for examining emotional valence of eWOM occurring in a more natural setting to gain a better understanding of its components and features. Second, since personal stories are used to tell how a treatment or medication impacted an individual's life, we argue here that emotion is often more complex in a health-related eWOM context than in a commercial product and service-related eWOM context. Our case study, therefore, provides an opportunity to examine emotional valences beyond simply being negative or positive, but rather takes into consideration the various degrees and types of negativity or positivity as well.

To orient the reader, our analysis of structural features of eWOM on a breast cancer bulletin board concentrated on four structural features: the proportion of informational and emotional eWOM, to what extent eWOM was emotionally positive, negative, neutral, or mixed, what product types were mentioned in eWOM, and to what extent information-seeking and –providing was prevalent in those online discussions.

In addition to the three theoretical values mentioned above, a very important practical value of such an analysis is that online bulletin boards represent important outlets for gathering data about segmented audiences who share a common interest or bond. Potentially, marketers can make use of eWOM within online bulletin boards, and learn about their consumers, instead of using expensive data collection means such as focus groups and surveys. This could be especially useful for health communication professionals since they always need to plan and implement research-based health promotions with low budget.

EWOM ON A BREAST CANCER BULLETIN BOARD

Online breast cancer bulletin boards are virtual platforms used for sharing eWOM messages about breast cancer-related medical information and personal experiences. In the past, marketers have not been allowed in health-related online communities, and most studies to date have examined these environments from a non-commercial perspective (Godes & Mayzlin, 2004; Gustafson, Hawkins, Pingree, McTavish, Arora, Mendenhall et al., 2001; Hersh, 2006). While these studies serve to inform the present example and establish that people need online communication for health-related issues, the present research adds to existing literature by examining the promotional potential of the interactive forums. Drawing on the structural aspects of the IAM–and as outlined in this chapter - the purpose of this example is to explore the presence of structural features of eWOM to better understand the specific features and characteristics of eWOM occurring in a context in which breast cancer patients discuss products in the natural flow of conversation. The chosen method of investigation was a content analysis of 50 women's "life stories" randomly sampled from an online bulletin board, resulting in 2,166 instances of eWOM.

eWOM, Information, and Emotion

In the traditional model of health, doctors monopolized the medical information market (Hardey, 2001). The emergence of online communications, however, changed the traditional doctor-patient relationship (Hardey, 2001). Compared with professional recommendations from doctors, consumer-initiated communication is of less accuracy and quality. Therefore, accurate information is not the sole consideration of patients who participate in consumer-initiated communication. Emotion plays an important role in the conveyance

of information (Lieberman & Goldstein, 2005). Emotion is regarded as important as cognition in achieving the goals of cancer communication (Dillard & Nabi, 2006). Since emotion is an important factor that can potentially impact the persuasive influence of health communication, it is worthwhile to examine the composition and valence of eWOM to determine the extent of its use in an online bulletin board. Therefore, the first two research questions in the current study are:

- RQ1: What is the proportion of emotion and information in eWOM?
- RQ2: What is the valence of emotions in eWOM?

When exchanging eWOM, cancer patients and survivors may also directly encourage people to purchase (or not purchase) certain products or services. So far, few previous studies show how frequently cancer patients offer direct recommendations in online consumer-to-consumer (C2C) communication. The current study takes a preliminary look at the frequencies of direct recommendations in eWOM and poses the research question:

- Q3: What are the features of direct recommending?

eWOM and Product Types

Product type may also influence persuasive techniques used in cancer-related communication. Cancer-related products are considered risk-driven since they are closely associated with cancer, a deadly disease (Lang, 2006). There are cancer prevention products, cancer detection products, and cancer therapies. Additionally, patients are also interested in non-medical products and services, which are frequently used in patient's daily life, such as wigs and bras. These products have different levels of risk. Research has shown that different cancer products are affected by persuasive

information in different ways (Jones, Denham, & Springston, 2006). Therefore, another purpose of this content analysis is to examine the relationship between cancer product types and structural features of eWOM. In terms of product types, the current study has a larger scope than earlier studies in that product types range from ones about cancer prevention to non-medical products and services. At the same time, the present example also looks carefully at the subcategories under cancer prevention products, leading to the fourth and final research question.

- Q4: What, if any, are the differences of eWOM across product types?

Content Analysis

In this content analysis, the context was an online breast cancer bulletin board. We obtained a demographic profile of users that were coded as well as all the postings of 50 women who were randomly selected from the universe of individuals who use this particular bulletin board. In this way we were able to obtain each woman's "life story" that includes a timeframe of a few months to several years, depending on when the individual first visited the online community. Frequencies were calculated for the demographic information of the selected women. Most participants were cancer patients (95%) and the rest were adult children and/or spouses of cancer patients (5%). Participants were 31-65 years in age, with 22% under 40, 50% between 40 and 50 and 28% above 50. Only 20% of participants reported that they had children. Forty-four percent of participants reported that they were employed; 96% were married, and 4% were divorced.

Two graduate students individually coded the postings for eWOM, resulting in 2,166 separate instances of eWOM (excluding the "can't tell" category). The intercoder reliability, measured by Scott's Pi, was .80 based on 20% of the sample (Scott, 1955). The variables included: 1) types of

eWOM appeals, 2) product types, 3) attitude, 4) informational valence, 5) emotional valence, and 6) recommending behaviors.

Types of eWOM Appeals

Types of eWOM appeals were defined as the type of persuasive techniques the eWOM uses to refer to the product. There were four sub-categories: emotional, informational, both, and can't tell. Emotional eWOM was defined as eWOM that arouse the feeling of fear, guilt, anger or happiness; informational eWOM was defined as eWOM about facts, data or numbers; the category of "both" meant that both emotional and informational eWOM appeared in one post. "Can't tell" was used when only the name of a product was mentioned, without any further information or comments, and coders could not decide whether it was informational or emotional or both. Such as, "my doctor gave me Effexor."

Product Types

Product type had six categories: cancer prevention products, cancer detection products, cancer therapeutic products, physical products, services, and others. Cancer prevention products were further divided into minerals, vitamins, food and vegetables, drinks, physical activity, and other.

Attitude

Attitude was defined as a participant's general views associated with the product/brand. Attitudinal valence is reflected by the global tone of the message containing products/brands and could be positive, negative, neutral (neither positive nor negative), mixed (both positive and negative).

Informational Valence and Emotional Valence

We also examined the valence of informational and emotional elements in the eWOM. The possible valence values for informational and emotional elements were positive, negative, neutral or mixed. To differentiate attitude, emotion, and information, an example is offered: a user wrote that she thought a cancer treatment was good for controlling her cancer, but she suffered from heart burning and poor appetite, which made her depressed. The post showed that the overall evaluation of the treatment was positive, which means the attitude toward the treatment was positive. At the same time, she offered negative information about the side effects of the treatment, and negative emotion associated with the treatment.

Recommending Behaviors

A direct recommendation refers to advice given about the brand or product (e.g., "try" this brand or this product). Participants used recommending behaviors to show a strong preference for certain products at the expense of others. Both recommendation-seeking and -giving behaviors were coded. Coders also evaluated the valence of recommendation behavior, coded as positive, negative or mixed (both positive and negative).

The unit of analysis was the individual posting. Both the name (pseudonym provided by the participant) of individuals who posted the message and the time of posting were coded to identify each post.

Statistical Analysis

After deleting the "can't tell" category for all variables (eWOM that only mentioned the name of a product), the resulting N of eWOM was 2,166, which the remainder of the analysis is based upon. This means that, on average, each woman wrote an average of 43 eWOM messages. As for the

proportion of eWOM (RQ1), there were nearly three times as many informational (n = 1,371) as emotional (n = 409) appeals. Looking specifically at informational appeals, there were fewer negative (n = 606) and mixed (n = 272) messages and nearly equal numbers of neutral (n = 646) and positive (n = 642) ones.

For emotional appeals (RQ2), there were far more neutral (n = 1,377) than positive (n = 355), negative (n = 250) or mixed (n = 184) tones. However, when emotionality was shown, it tended to be more positive (n = 355) than negative (n = 250) (χ^2 = 511.798, p < .01).

We also examined direct recommendations of eWOM (RQ3). First, the results show that direct recommending is common among participants. On average, every woman made six direct recommendations, and every 12.6 posting had a recommendation. Among these messages, 234 were recommendation seeking and 308 were recommendation giving. Direct recommendations were positive (n = 244) more so than negative (n = 23) or mixed (n = 41), which means that participants were inclined to encourage use of a product rather than discourage it.

To address RQ4, a cross-tabulation was calculated for emotional and informational appeals across product types. Cancer therapies were the predominant topic (n = 1,245) followed by discussions about physical products (n = 515), services (n = 178), cancer detection (n = 170), and cancer prevention (n = 58).

As shown in Table 3, the cross product comparison indicated that there was more informational than emotional eWOM for every product type (χ^2 = 21.87, p < .01).

Table 4 shows that neutral emotion is the dominant type of emotional eWOM for all product categories, but each product type slightly differed from the rest on positive and negative emotional eWOM, proportionally. As shown in Table 4, there were more negative than positive emotions for cancer detection products, and more positive than negative emotions for cancer therapeutic treatments, physical products, and services (χ^2 = 76.71, p < .01).

In contrast, there was almost equal numbers of neutral, positive, and negative informational eWOM in general, while eWOM with mixed informational valence value was the smallest category for all product types (Table 5). However, there were differences in valence value for specific product types. There was more neutral information about cancer detection products and cancer treatments than negative information or positive information. There was more positive information than negative information of physical products and services (χ^2 = 377.697, p < .01).

In addition, product attitudes were also measured for eWOM in relation to product types. Results show that participants more frequently held positive attitudes toward cancer prevention products than negative attitudes (see Table 5). However, the reverse is true for cancer therapeutic

*Table 3. Product type * eWOM type*

		eWOM			Total
		Emotion	**Information**	**Both**	**Total**
Product	Cancer prevention product	7	44	7	58
	Cancer detection treatment	50	94	26	170
	Cancer therapeutic treatment	239	772	234	1245
	Physical product	88	340	87	515
	Service	25	121	32	178
Total		409	1371	386	2166

*Table 4. Product type * emotional valence*

		Emotion				Total
		Positive	Negative	Neutral	Mixed	
Product	Cancer prevention product	5	1	52	0	58
	Cancer detection treatment	26	32	90	22	170
	Cancer therapeutic treatment	186	168	783	108	1245
	Physical product	89	44	333	49	515
	Service	49	5	119	5	178
Total		355	250	1377	184	2166

*Table 5. Product type * information valence*

		Information				Total
		Positive	Negative	Neutral	Mixed	
Product	Cancer prevention product	34	9	13	2	58
	Cancer detection treatment	28	34	87	21	170
	Cancer therapeutic treatment	229	458	383	175	1245
	Physical product	219	100	129	67	515
	Service	132	5	34	7	178
Total		642	606	646	272	2166

products in that there were more negative than positive attitudes (χ^2 = 305. 471, p < 0.01). In contract to emotional valence, attitudes, i.e. the general tones of eWOM were most of the time positive rather than neutral.

Discussion of Content Analysis Results

The major findings of our study showed that eWOM predominantly took the form of informational (versus emotional) appeals. When emotion was revealed, eWOM was neutral most of the time, and there was more emotionally positive eWOM than emotionally negative eWOM. In other words, emotional negativity was not that common on the discussion board. This finding differed depending on which product type was examined.

The analysis of the structural features reveals several insights into eWOM on the breast cancer discussion board. First, it seems that eWOM in

the breast cancer discussion forum have complex emotional valence values. There was a large proportion of emotionally neutral eWOM, and a considerable number of eWOM with mixed emotional valence. Second, eWOM in the breast cancer discussion forum was most of the time emotionally neutral. When emotionality was shown, eWOM was most of the time positive than negative for most product categories except cancer detection treatment. Based on the two observations, we can infer that the neutrality in emotion may be a result of avoidance of emotional negativity associated with cancer-related treatments, products, and service. A possible explanation of avoidance of negativity is that such online discussion forums are considered a place to reduce pressure from inflicting its deadly disease. Meaning, negativity may very well have been intentionally avoided by participants. This finding is in line with human nature avoiding pain and danger suggested by theories (Lang, 2006).

*Table 6. Product type * attitude valence*

		Attitude				Total
		Positive	**Negative**	**Neutral**	**Mixed**	
Product	Cancer prevention product	35	3	20	0	58
	Cancer detection treatment	48	38	55	29	170
	Cancer therapeutic treatment	349	434	310	152	1245
	Physical product	254	104	75	82	515
	Service	147	7	12	12	178
Total		833	586	472	275	2166

As pointed out in the previous paragraph, emotion associated with cancer detection treatments was most of the time neutral or negative. However, at the same time, people's attitudes toward cancer detection products were more frequently positive or neutral than negative. This seeming contradiction is understandable. Because cancer detection products are associated with high-risk consequences, i.e. having cancer, it is natural that cancer detection products are associated with negative emotion. However, at the same time, because of the usefulness of information provided by cancer detection products, the rational part of a human being leads people to form positive attitudes toward those products. Theoretically, this finding implies that the risk associated with certain health-related messages or behaviors leads to negative emotion, but it does not necessarily lead to negative attitudes toward the health-related messages or behaviors. The influence of cognition seems to play a more influential role than emotion in attitude-formation in cancer communication. Practically, the contradictory results imply that marketers may be better off emphasizing positive attitudes toward cancer screening in an attempt to avoid priming women's anxiety.

While participants may intentionally avoid negativity, a positive trend to encourage others to take actions was also observed. Participants also provided direct recommendations where they explicitly asked another participant to "try" a product or service, and this recommending be-

havior occurred most often in positive ways such that encourage use of a product/service versus discourage not using a product or service—again, emphasizing positive over negative information. Rationally, taking actions to cope with this medical condition increases the possibility of a cure rather than doing nothing. Appreciating the merit of taking actions, participants may consciously facilitate behavioral changes. This trend of emphasizing positive actions can also explain the phenomenon that there was much more emotionally neutral eWOM and slightly more emotionally positive eWOM than emotionally negative eWOM about cancer treatment products. Taking treatments most of the time introduces the possibility of getting better, and therefore, should be encouraged and facilitated. Theoretically, this finding implies that the processing of eWOM is a conscious and rational process, to a larger extent, and negative emotion is intentionally controlled. Instead, the rational mind of the participants created large amounts of emotionally neutral and positive eWOM of cancer treatments to facilitate this behavior among each other.

From the above discussion, we can see that analysis of structural features can provide useful information for both theoretical research and practical investigation. In addition, the results also demonstrated that the definition of eWOM should be modified in two ways as mentioned when defining eWOM. First, the understanding of products and brands should be extended. Over

two thousand eWOM were identified on the breast cancer bulletin board, which showed that even health-oriented online discussions could generate large amount of eWOM. Besides eWOM about ordinary products such as wigs and bras, there were a lot of eWOM about cancer detection, treatment, and prevention procedures, services, and products. Those product types are different from the traditional concept of products and brands, but are of great importance to understand eWOM in the context of health promotion. Second, the definition of eWOM should be broadened to include more versatile classification of valence values. The case study presented here showed that neutral eWOM was a significant proportion of eWOM in the breast cancer online bulletin board. Neutral eWOM also provides useful information for theoretical explanations of eWOM and practical applications of eWOM. Specifically, since the frequency differences between emotionally positive and negative eWOM were most of the time small (most of the time < 50) in this case, the tendency of avoiding emotional negativity may be less unclear solely by simply looking at emotionally positive and negative eWOM. However, by incorporating emotionally neutral eWOM into the analysis, the large number of emotionally neutral eWOM made it evident that emotional negativity was avoided most of the time. Supposing that emotionally neutral eWOM were small in number, we would come to the conclusion that positive and negative emotions are generally balanced in the online discussion. From the above discussion, we can see that predominant neutrality existed in eWOM for a reason. In summary, the definition of eWOM should be extended to include consumer statements about more diverse products and brands, ranging from positive, negative, to neutral and mixed eWOM. eWOM should be further refined as "comments, recommendations, or any statements about products and services on the Internet."

SUMMARY

This book chapter sought to define and categorize electronic word-of-mouth (eWOM) based on different online platforms of consumer-generated content (CGC), review existing research in eWOM, and extending the use of eWOM to health promotion by examining characteristics of eWOM in an online breast cancer bulletin board. We began our chapter by situating eWOM within the broader CGC context and argued that the current definition of eWOM needs to be modified in two ways: by expanding the contexts within which eWOM occurs, for instance, health-related and non-commercial contexts versus traditional commercial contexts online; and by examining valence in terms of degree of positive versus negative eWOM as well as recognizing the role of informational versus emotional information conveyed in eWOM advertising. Relating eWOM to different online CGC platforms, this chapter describes two primary contexts, i.e., informational contexts such as online feedback systems and consumer review sites, and emotionally-oriented contexts in which strong connections and ties are formed with friends and family members who share similar interests, hobbies, values, etc., such as electronic discussion boards, online communities, and online social networking sites. Our chapter describes how these two contexts differ in terms of features and roles in the marketing communications mix.

In the second section of this chapter, we outlined a schemata based on Rodgers and Thorson's (2000) Interactive Advertising Model that helps to organize existing literature on eWOM in terms of three schools of thought: functionalism, information processing, and structuralism. Studies from the functional approach consisted of descriptive results based on consumers' eliciting and producing eWOM, patterns of dissemination, and motives of eliciting and producing eWOM. Studies from the perspective of information processing examined influences of eWOM on consumers'

psychological response to eWOM including influences of eWOM on consumers' attitudes and purchase behaviors. Last, we examined structural features, including studies on types, formats, and features of eWOM, We argued that the structural features of eWOM is the least frequently examined area in the scholarly literature on eWOM and therefore requires additional research to provide greater understanding on eWOM is structured and what specific features are used in creating and disseminating eWOM.

From the review of eWOM this book chapter identifies two gaps in the eWOM literature: the lack of analysis of structural features in areas where researchers and practitioners have limited access, and the extension of the current definition of eWOM to include more valence values and product types, which is more realistic of how eWOM occurs. To address this, a case study of eWOM on a breast cancer online discussion board was presented in the third and final section of this chapter. The results revealed two trends: avoidance of emotional negativity, and encouragement of positive actions with regard to specific products and services. We discussed both theoretical and practical implications of these results. Since the neutrality of eWOM can also provide useful information we argued that the definition of eWOM should be extended to include more diverse categories of valence values. The large volume of eWOM created and shared by the women in the sample—especially eWOM about cancer detection, prevention, and treatment—indicates that the definition of eWOM should also take into account those types of "non-traditional" product types.

We hope that after reading this chapter, a clearer understanding of the concepts of eWOM and CGC can be gained. By pointing out the current definition of eWOM within the broader CGC literature, and by extending this definition, specifying types of eWOM, organizing the literature into the three schools of thoughts, and demonstrating the practical and theoretical uses of examining eWOM features within the context of a non-traditional consumer-generated forum, this book chapter offers readers a comprehensive summary of existing (and needed) eWOM studies to pursue new directions in research.

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