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# CHRONOLOGICAL ANALYSIS OF THE ELECTRONIC WORD- OF-MOUTH EFFECT OF FOUR SOCIAL MEDIA CHANNELS ON MOVIE SALES: COMPARING TWITTER, YAHOO!MOVIES, YOUTUBE, AND BLOGS

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# CHRONOLOGICAL ANALYSIS OF THE ELECTRONIC WORD-OF-MOUTH EFFECT OF FOUR SOCIAL MEDIA CHANNELS ON MOVIE SALES: COMPARING TWITTER, YAHOO!MOVIES, YOUTUBE, AND BLOGS

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## Abstract

*Based on Rogers's innovation diffusion model, we investigate how electronic word-of-mouth (eWOM) through different types of social media impacts movie sales across the different phases of movie screening. We collected eWOM information on movies from February to October 2012 from Twitter, Yahoo!Movies, YouTube, and blogs on a daily basis. The results indicate that Twitter is relatively influential on movie revenue in the initial stage of opening because of its mass media characteristic. On the other hand, Yahoo!Movies and blogs are relatively influential on movie revenue in the late stages of opening because of their interpersonal communication characteristics. Since YouTube contains both characteristics of mass media and interpersonal communication, we determine that there is no difference in the impact of YouTube on movie revenue between the initial and late stages of opening.*

*Keywords: Electronic Word of Mouth, Social Media, Innovation Diffusion Model, Mass Media, Interpersonal Communication*

# 1. INTRODUCTION

With the rapid spread of social media, electronic word of mouth (eWOM) serves as a reliable source of information for movie customers. Numerous studies on the impact of eWOM on sales have been conducted due to the proliferation of eWOM on social media. Studies have strongly supported the notion that eWOM is an important information source for consumers when they make purchase decisions (e.g., Basuroy et al. 2003; Chen et al. 2008; Chevalier and Mayzlin 2006; Dellarocas et al. 2007; Duan et al. 2008a; Duan et al. 2008b; Rui et al. 2011). These studies investigated online review sites (Dellarocas et al. 2007; Duan et al. 2008a; Duan et al. 2008b; Liu 2006), Twitter (Asur and Huberman 2010; Rui et al. 2011; Shin et al. 2011; Zhang et al. 2010), blogs (Qin 2011), and many other social media channels. However, there is no comparative analysis on the impacts of different social media channels on sales.

Information seekers obtain information on the same subject through various social media channels. But do these seekers recognize this information from different channels without discernment? Treating each social media channel identically is problematic, because diverse characteristics of media were not sufficiently reflected. Therefore, it is necessary to identify the characteristics of the various social media channels.

Based on the innovation diffusion model (Rogers, 2003), this study tried to classify eWOM through four representative social media channels according to the characteristics of mass media and interpersonal communication media: Twitter, Yahoo!Movies, YouTube, and blogs. Then, this study analyzed whether each social media channel has a significantly different impact on movie sales in terms of eWOM across the initial and late stages of opening. For this analysis, the study collected the daily eWOM and weekly movie revenue data for 145 target movies released between February and August 2012. These panel data on eWOM were collected from Twitter, Yahoo!Movies, YouTube, and blogs two or three weeks prior to the films' release until the last date of the film's screening. Weekly movie revenue data was also collected from BoxOfficeMojo.com.

Movies were selected as research domain for the following three reasons: Firstly, the movie is an experience good that an individual cannot evaluate before he or she makes a purchase, and eWOM is considered an important information source for experience goods. Secondly, eWOM and revenue information for movies are relatively easy to obtain. For most items, total and periodic revenues are unknown. Thirdly, the innovation diffusion model is applicable to movies because movies show no repeat purchase behavior (Chung 2011).

This study makes several contributions to the IS field. It compares the diverse results from the impact of eWOM from different social media channels that can be categorized somewhere between mass media and interpersonal communication media. We expect that our findings will provide some guideline regarding which social media channel is appropriate for the different aims of eWOM management.

The remainder of this paper is organized as follows. Section 2 reviews the theoretical foundation, and Section 3 presents the research model and hypotheses development. Section 4 describes the research methodology including data collection. Section 5 explains the results of the empirical analysis from actual eWOM data and the discussion of the analysis results, and Section 6 discusses limitations and future research.

## **2. THERETICAL FOUNDATION**

### **2.1 Electronic Word of Mouth**

Traditional word of mouth (WOM) is defined as “informal, person-to-person communication between a perceived noncommercial communicator and a receiver regarding a brand, a product, an organization, or a service” (Anderson 1998; Harrison-Walker 2001). WOM has developed into electronic word of mouth (eWOM) through the growing prevalence of the Internet. Currently, eWOM may be defined as “any positive or negative statement made by potential, actual, and former customers about a product or a company via the Internet” (Cheung and Thadani 2010).

Existing studies suggest that eWOM differs from WOM in terms of several characteristics. First, generating eWOM is not restricted by time and space (Lee 2009). Anyone who can use the Internet can generate and utilize eWOM. Information seekers are able to find numerous pieces of eWOM information if they are online, regardless of time or location. Second, eWOM transmitted in the form of written text via the Internet does not quickly disappear. This facilitates a faster diffusion rate and broader coverage scope (Sung et al. 2010). As a result of these characteristics, the impact of eWOM on product purchases is significantly stronger than that of WOM. A number of studies have examined the impact of eWOM on product revenue (e.g., Basuroy et al. 2003; Chen et al. 2008; Chevalier and Mayzlin 2006; Dellarocas et al. 2007; Duan et al. 2008a; Duan et al. 2008b; Rui et al. 2011).

Social media is defined as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user generated content (UGC)” (Kaplan and Haenlein 2010). Examples of social media channels are Facebook, Twitter, LinkedIn, YouTube, online review sites, and blogs (Hanna et al. 2011).

In light of recent developments with social media channels, studies on the impact of eWOM on diverse social media are actively underway. Only a few studies have considered eWOM through diverse social media channels simultaneously (e.g., Morales-Arroyo and Pandey 2010; Oghina et al. 2012). However, those studies have focused on developing the accurate revenue prediction model, rather than comparing the effects of eWOM through different social media channels.

Several studies have attempted to classify social media channels intuitively rather than empirically (e.g., Kaplan and Haenlein 2010; Kietzmann et al. 2011). Kaplan and Haenlein (2010) attempted to classify social media channels based on characteristics such as self-presentation and media richness. Kietzmann et al. (2011) provided a framework upon which to classify social media using seven functional blocks including identity, conversations, sharing, presence, relationships, reputation, and groups. Our study classifies social media channels empirically based on the characteristics of mass media and interpersonal communication.

### **2.2 Communication Channels and Innovation Diffusion Model**

Communication channels were classified as mass media and/or interpersonal communication media in the course of diffusion (Rogers 2003). According to Rogers (2003), the mass media channel refers to the “means of transmitting messages that involve a mass medium, such as radio, television, newspapers, and so on, which enables a source of one or a few individuals to reach an audience of many.” Mass media can rapidly reach a large audience, create knowledge and spread information, and change weak attitudes. On the other hand, the interpersonal communication channel entails communication between two or more individuals. Interpersonal communication channels can provide a two-way exchange of information and persuade an individual to form or to change a strongly held attitude. Rogers (2003) approached four features: immediacy (reach a large audience rapidly), diffusibility (create knowledge and spread information), persuasion (change an existing attitude), and two-way communication (provide a two-way exchange of information) as the standards of classifying mass media and interpersonal communication media.

The diffusion of the innovation model has origins in several academic areas from the 1940s and the 1950s and explains how innovations in society or organizations have spread (Rogers 2003).

According to Rogers (2003), diffusion refers to “the process in which an innovation is communicated through certain channels over time among the members of a social system.”

Rogers (2003) stated that the innovation decision process consists of knowledge, persuasion, decision, implementation, and confirmation. This study focuses on the stages of knowledge and persuasion. In the knowledge stage, individuals mainly pursue innovative information. They want to know what innovation is and how and why it works. In this stage, mass media plays a role in conveying this information effectively.

In the persuasion stage, individuals look for evaluative information on the innovation in order to reduce uncertainty. The interpersonal communication network is likely to convey such evaluative information. In this stage, the mass media channel is relatively unimportant. The mass media message is essentially universal, whereas individuals deciding whether to adopt an innovation want more specific details.

In summary, mass media is one of the fastest and most efficient means of informing about the presence of innovation (i.e., producing perception knowledge) and plays an important role among innovators. According to Bass (1969), innovators are defined as “individuals who decide to adopt an innovation independently of the decisions of other individuals in a social system.” Meanwhile, interpersonal communication is an efficient means of persuading others to accept new ideas and plays an important role among imitators. Imitators are defined as “individuals who are influenced in the timing of adoption by the decisions of other members of the social system” (Bass 1969). Bass (1969) hypothesized that the innovative purchaser would be affected by mass media communications, whereas the imitative purchaser would be affected by interpersonal communications before accepting new durable products. Innovative purchasers are affected by external influencers such as promotional and marketing activities. This entails expanding the early-adopter group. Meanwhile, imitative purchasers are affected by internal influencers through interpersonal communication.

### **3. HYPOTHESES DEVELOPMENT**

#### **3.1 Survey for the Classification of Social Media Channel**

The present study considers four social media channels as main sources of eWOM: Twitter, a representative social networking service (SNS) and microblog service; Yahoo!Movies, an online review site; YouTube, a free video sharing site; and blogs, a medium through which users upload and share personalized posts. This study surveys the characteristics of these four social media channels in terms of mass media and interpersonal communication media as presented by Rogers (2003). Figure 1 shows the possible classification of these four social media channels according to the characteristics of mass media and interpersonal communication media.

To determine the closeness of each social media channel to either the mass media or interpersonal communication media, we conducted a seven-point Likert scale survey of 17 researchers studying social media from September 10 to 17, 2012. The four measures presented by Rogers (2003) are utilized as survey items that characterize mass media from interpersonal communication media (Pavlik and Mcintosh 2011; Rogers 2003). We asked participants to rate each social media platform (Twitter, Yahoo! Movies, YouTube, and blog) regarding the relative position in terms of the following four dimensions: immediacy, diffusibility, persuasion, and two-way communication.

The factor loadings for immediacy, diffusibility, persuasion, and two-way communication were 0.953, 0.879, 0.659 and -0.364, respectively. As a result, two-way communication appeared inappropriate as the criterion for media classification of social media channels. Hence, immediacy, diffusibility, and persuasion were used to classify four social communication channels. The inter-rater reliability value in terms of Cronbach’s alpha was 0.953. An acceptable level for Cronbach’s alpha is 0.70. The mass media characteristic appeared most strong for Twitter, followed by YouTube, blogs, and Yahoo! Movies (see Figure 1).

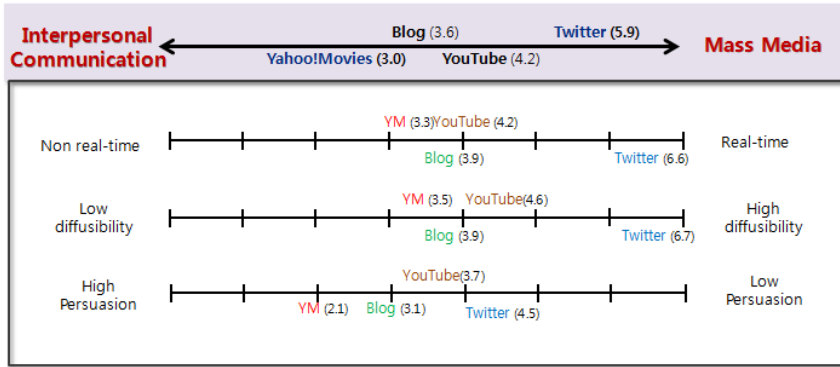


Figure 1. Characteristics of Various Social Media

Through the K-means cluster analysis, we found that Twitter belonged to the cluster of mass media-type social media, whereas online reviews, blogs, and YouTube belonged to the cluster of interpersonal communication-type social media (see Table 1).

Social Media	Cluster	Distance
Twitter	1	0.000
Online Review	2	8.199
YouTube	2	7.476
Blog	2	7.888

Table 1. Results for K-means Cluster Analysis of Four Social Media

### 3.2 Mass Media-Type Social Media

Thanks to the ease of use and brevity of messages, Twitter allows its users to communicate timely information (Murthy, 2011). Disseminating rapid news on disasters, Twitter received a lot of media attention (Murthy, 2011). Rui et al. (2011) noted that Twitter has the awareness effect, which refers to “the function of spreading basic information about the product among the population.” Since Twitter demonstrates a much stronger awareness effect than other social media channels, it is expected to have relatively stronger mass media characteristics. In our survey analysis, Twitter also shows a strong aspect of mass media. For example, in 2009 when an airplane crashed into the Hudson River in New York in five minutes after its take-off, it was through Twitter rather than the news channels including CNN that the accident was first reported (high immediacy). As soon as President Obama was elected, “4 more years” was retweeted more than 500 thousand times in a day (high diffusibility). In other words, it was found that Twitter is a mass media channel with faster speed and stronger diffusion than others.

Rogers (2003) asserted that mass media plays an important role in the initial stage of innovation diffusion as one of the fastest and most efficient means of informing the presence of innovation. Thus, we hypothesize that Twitter has a stronger impact on revenue in the initial stage than in the later stage.

*Hypothesis 1: Twitter (a mass media type of social media) has a stronger impact on movie revenue in the initial stage than in the later stage.*

### 3.3 Interpersonal Communication-Type Social Media

Online review sites, blogs, and YouTube as presented in the above survey are the channels that show the characteristics of interpersonal communication media. According to Malone et al. (2012), online review is a typical example of collective intelligence. Online review has the characteristic of interpersonal communication with the strong persuading power of eWOM in that consumers gather all online reviews into one place, and other consumers can use the useful information found therein for

their purchasing activities (strong persuasion). Rui et al. (2011) also asserted that online review sites are dominated by the persuasive effect.

In addition, blogs and YouTube also have characteristics of interpersonal communication with strong persuasive effects. These channels are useful for decision making because blog reviews of movies are written in relative detail, and movie trailers in YouTube also provide more extensive information compared to tweets, which are limited to 140 characters on Twitter. Rogers (2003) asserted that interpersonal communication is effective in persuading imitators to accept new ideas in the later stage of innovation diffusion. Therefore, the current study hypothesizes that Yahoo!Movies, blogs, and YouTube have a stronger impact on movie revenue in the later stage than in the initial stage.

*Hypothesis 2a: Yahoo!Movies (an interpersonal communication type of social media) has a stronger impact on movie revenue in the later stage than in the initial stage.*

*Hypothesis 2b: Blogs (an interpersonal communication type of social media) have a stronger impact on movie revenue in the later stage than in the initial stage.*

*Hypothesis 2c: YouTube (an interpersonal communication type of social media) has a stronger impact on movie revenue in the later stage than in the initial stage.*

## **4. RESEARCH METHODOLOGY**

### **4.1 Data Collection**

This study collected eWOM and sales information on 145 movies released between February and August 2012 in the U.S. The data was collected as panel data from two or three weeks before the release until the last date of the film showing. The study collected tweet data from Twitter (<http://www.twitter.com>), online review information from Yahoo!Movies (<http://www.movies.yahoo.com>), trailer information from YouTube (<http://www.youtube.com>), blog posting information from Yahoo! blog search (<http://blogsearch.yahoo.com>), and weekly sales information from BoxOfficeMojo.com (<http://www.boxofficemojo.com>) from February to October 2012.

The present study used Twitter's open application programming interface (API) to develop the program for collecting daily tweet and user information for the target movies. This study collected the actual online review data for the target movies from Yahoo!Movies, one of the most widely known online review websites for movies. Yahoo!Movies has a well-organized design and is relatively easy to collect information from, thus reducing data collection errors as much as possible (Liu 2006).

This study collected daily trailer information (number of views) for the target movies from YouTube. However, collecting data from YouTube involved a number of difficulties. At first, we had to identify a representative trailer for a particular movie, because there are slightly different versions of the trailer for each movie on YouTube. Ten official trailers were therefore selected two or three weeks before each movie release in the order of the most frequent views. We tried to collect information about 10 trailers per movie, but ultimately we collected information on 8.87 trailers per movie on average, because trailers sometimes disappeared after the film release.

This research collected daily blog posts for the target movies using Yahoo! blog search. Previous studies used Google blog search and BlogPulse to investigate eWOM impact on product sales. However, as of January 2012, BlogPulse is no longer in service. Moreover, Google blog search provides incorrect information if the number of search results is more than 64. Although Yahoo! blog search offers relevant blogs in fewer numbers than Google blog search, it is considered more reliable. The blog search aggregated the number of blogs containing the word "movie" with each movie title.

The current study also collected data on weekly movie revenue from BoxOfficeMojo.com. Previous research used data from BoxOfficeMojo.com to investigate the impact of eWOM on box-office

revenue (e.g., Asur and Huberman 2010; Dellarocas et al. 2007; Duan et al. 2008a; Duan et al. 2008b; Qin 2011; Rui et al. 2011).

## 4.2 Descriptive Statistics

As presented above, this study attempted to collect information on eWOM and revenue regarding 145 movies. However, not all eWOM information on those target movies could be collected due to some limitation in data collection. In the case of Twitter, for example, collecting data on the movie title “Gone” from tweets was inaccurate, because many instances of the word “Gone” appeared in tweets unrelated to the movie. Table 2 presents the descriptive statistics on the weekly eWOM volume from each social media channel and the weekly movie revenue. The analysis implied that, on average, approximately 20 blog posts per movie were written weekly, including 17.7 ratings per movie in Yahoo!Movies, 16,236 tweets per movie, and 21,971 views per trailer in YouTube. The weekly average movie revenue was \$4.24 million.

Variable		Mean	Std. Dev.	Min	Max	N (week <sub>it</sub> )
YouTube	weekly view	21971	99624.48	0	2493728	2202
Yahoo!Movies	weekly rating number	17.68	86.34247	0	1737	1819
Blog	weekly blog	20.17	73.42	0	2692	4881
Twitter	weekly tweet	16236	61311.8	0	1267820	2486
Mojo	weekly revenue	4.24e+06	1.61e+07	25	2.70e+08	1176

Table 2. Descriptive Statistics on the Weekly eWOM Volume

Figure 2 illustrates the weekly variance of eWOM in relation to movie revenue. To unify the dimensions, the graph is drawn on the basis of standardized values. Opening week is “week 1,” one week before opening is “-1,” and two weeks before opening is “-2.” Generally, most eWOMs are found to follow a trend similar to movie revenue. In the first week of release, revenue as well as eWOM in all social media shows its peak, and the difference in the volume of eWOM between one week before release and two weeks after release is not significant. In addition, the volume of eWOM decreases rapidly one or two weeks after release. The volume of eWOM levels out in the late stage of the film release.

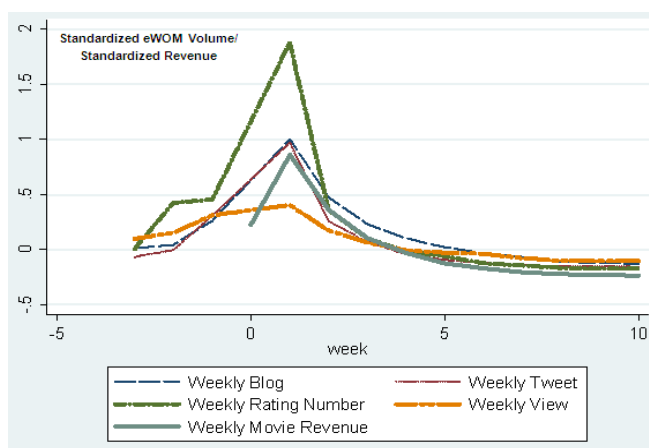


Figure 2. Weekly Variance of eWOM Volume and Movie Revenue



## 5. ANALYSIS RESULTS

### 5.1 Results of Hypotheses Test

Figure 3 shows the results of the simple linear regression analysis by week and by social media channel to determine the impact of each form of eWOM on weekly movie revenue. Given that the dimension of each form of eWOM differs, the coefficients of determinants are used for comparison (see Figure 3).

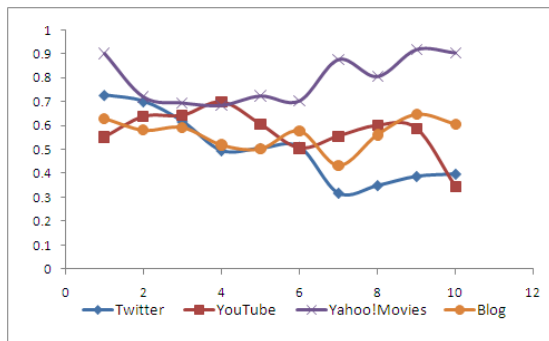


Figure 3. Weekly Coefficient of Determinants of Each eWOM

Table 3 summarizes the comparison results of the impact of each eWOM by week. For this analysis, we use Fisher's r-to-z transformation to test the significance of the difference between two correlation coefficients. Twitter appears to have a significantly stronger impact in the initial time of opening than in the later times, thus supporting Hypothesis 1. Yahoo!Movies shows that the impact on movie revenue tends to be significantly stronger in the later as opposed to the initial stages, supporting hypothesis 2a. The result also shows that blogs have a stronger impact on movie revenue later as opposed to the initial stage of opening, supporting Hypothesis 2b. Throughout a film's opening, the impact of YouTube appears to be relatively consistent, rejecting Hypothesis 2c. Like Cheon (2004) and Cho (2006), our study defines the initial time of opening from week 1 to week 3, whereas the later time of opening is from week 4.

	Correlation		Transformed Correlation		N <sub>1</sub> (Week 1,2,3)	N <sub>2</sub> (Week 4~)	Fisher's Z	p value
	Week 1,2,3	Week 4~	Week 1,2,3	Week 4~				
Twitter	0.632	0.492	0.745	0.539	296	771	3.001	0.001
Blog	0.561	0.681	0.634	0.831	322	800	-2.969	0.001
Yahoo!Movies	0.552	0.842	0.621	1.228	179	741	-7.233	0.000
YouTube	0.710	0.704	0.887	0.875	293	728	0.173	0.431

Table 3. Comparison of the Impact of Each eWOM by Week

### 5.2 Discussion

With the emergence of various social media channels, various kinds of eWOM come to influence customer purchase decisions. Numerous works of research have presented empirical analysis of the impact of eWOM from various social media channels on consumer decision making. The present study is novel for investigating the time-periodic impact on movie sales from four social media channels: Twitter, blogs, Yahoo!Movies, and YouTube.

It is found that Twitter is characterized as a mass media type of social media, whereas Yahoo!Movies and blogs are identified as forms of interpersonal communication type of social media. However, it is difficult to define YouTube as either type of social media. In conclusion, Twitter is found to be strongly influential in the initial stage of opening and Yahoo!Movies and blogs in the later stage. This outcome can be explained by the diffusion of innovation theory that asserts that the influence of mass

media is stronger in the initial stage of innovation spread and that of interpersonal communication is stronger in the later stage.

Twitter is the most influential mass media channel in the initial stage of movie opening. This is due to the fact that Twitter has a strong awareness effect in real time through the push mode (high immediacy) and a rapid spread via the retweet function (high diffusibility). Twitter configures social networks and conveys opinions in relatively few words, but it has relatively weak persuasive effects (weak persuasion); opinions expressed on the same theme are not condensed but instead scattered when compared to those in other social media channels. According to the data from Twitter used in this study, the average number of followers per user is 2,142, and the ratio of retweets in the total number of tweets is 26%, suggesting that Twitter can be characterized as mass media.

Meanwhile, Yahoo!Movies online reviews are found to be characterized as forms of interpersonal communication. Existing studies have involved in-depth study of the awareness and persuasive effects of online reviews. However, there is no consensus on whether the awareness effect (Duan et al. 2008a) or the persuasive effect (Rui et al. 2011) has greater influence. From this study, we can conclude that online review is considered to have relatively stronger persuasive effects, because it provides the condensed information originating from the public (collective intelligence), and users can frequently visit Yahoo!Movies by searching for the desired information (pull mode). In addition, the influence of an online review is considered relatively lower in the initial stage of opening, because it must secure a certain threshold of volume before it functions as collective intelligence. Based on this study, online reviews are found to be related to collective intelligence with strong persuasive effects, suggesting that Yahoo!Movies may be characterized as a form of interpersonal communication media.

Blogs also possess characteristics of interpersonal communication. Blogs' impact on movie revenue is stronger in the later stage as opposed to the initial stage of opening, just like Yahoo!Movies. Blogs have characteristics of interpersonal communication with strong persuasive effects in that users can frequently visit blogs by searching for the desired information (pull mode), and they are useful for decision making because their reviews of movies are written relatively in detail. Chiu et al. (2010) also asserted that blogs do not have the chance to actively promote their content to users, compared to newspaper and broadcast media. Instead, they rely on visits from web surfers (pull mode). We can also conclude that blogs have characteristics of interpersonal communication, because people assign more credit to blogs than to traditional media (Johnson and Kaye 2004).

The impact of YouTube on movie revenue is found to be consistent through the initial stage until the late stage of opening. Therefore, it can be seen that YouTube has both mass media and interpersonal communication characteristics. Broxton et al. (2013) classified the referrer sources for YouTube video views as social (e.g., external links such as blogs, Facebook, Twitter referral) or nonsocial (e.g., search and a link from related videos), and found that 25% of the daily views on YouTube are the result of social views. In other words, YouTube has characteristics of interpersonal communication, because consumers access YouTube contents by searching for the movie title (pull mode) for their decision making (persuasive effect). YouTube also has characteristics of mass media, because URL information from YouTube is delivered using the push mode through other media such as Twitter and Facebook (awareness effect). In the context of movie consumption, YouTube plays the role of a platform where a buying decision is made by users watching trailers (mass media) or listening to opinions, all of which are kinds of collective intelligence (interpersonal communication).

## **6. CONCLUSION**

This study makes several contributions to theory. Firstly, the study attempts to classify social media channels by performing an empirical analysis. As far as we know, this is the first study to classify social media channels from the perspective of social media impact based on actual eWOM data. Existing research has attempted to classify social media channels, but mainly consists of intuitive rather than empirical analysis.

Secondly, this study characterizes social media in terms of the characteristics of mass media and interpersonal communication media from the perspective of Rogers's innovation diffusion model. Social media tends to be regarded as an evolved form of existing mass media, but it also has characteristics of interpersonal communication media. Our findings indicate that eWOM through each social media channel shows a different degree of characteristics between mass media and interpersonal communication. Accordingly, the influence of eWOM is expected to differ by period, depending on its platform characteristics.

The results of this study have several practical implications that provide useful insights for eWOM management and social media providers. Twitter possesses mass media characteristics that are more influential in the initial stage, while Yahoo!Movies and blogs possess interpersonal communication characteristics that are more influential in the late stage. The findings of this study present some strategic directions for corporate eWOM management. The findings are also indicative of appropriate social media channels for corporate use among various social media channels. For example, increasing the utility of social media channels characterized as mass media, such as Twitter, will be necessary to increase awareness of new products. Similarly, managing social media with high persuasive effects, such as online reviews and blogs, will be important for products that have already gained public awareness.

This study also has limitations. Firstly, the study selects the movie domain to investigate the impact of eWOM on product sales. Evidently, however, diverse types of products are available in practice. For the sake of successful generalization, verification of eWOM impact on other products is necessary. Secondly, the study investigates how the impacts of eWOM through four kinds of social media channels differ. However, numerous kinds of social media channels are available, including social network services, collaborative projects, discussion forums, and virtual social worlds. To overcome this limitation, future research should conduct a comparative analysis of the impact of eWOM from other social media channels such as Facebook, Second Life, and Wikipedia.

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