

TWITTER USERS AS GATEKEEPERS OF ELECTRONIC WORD-OF-MOUTH
SURROUNDING THEATRICAL RELEASES

by

STEPHANIE ANN STEVENS

(Under the Direction of Karen Whitehill King)

ABSTRACT

Using network gatekeeping and uses and gratifications theories, this research examines how Twitter users act as gatekeepers of electronic word-of-mouth (eWOM) for their social networks. Two studies examine Twitter eWOM surrounding theatrical film releases. In study one, network analysis of pre- and post-release eWOM networks identified gatekeepers of movie eWOM. Content analysis of identified gatekeepers revealed Twitter accounts affiliated with media appeared as popular information sources more often than other users. Users disseminating information to different groups in the network were more likely to be media sources while users seeking information from different groups showed no differences in affiliation. In study two, a survey of college students explores motivations for seeking and forwarding information from gatekeepers identified in the network analysis. Respondents reported higher likelihoods to seek and share information from friends, family, and public figures than media and official film communicators. Information seeking and sharing motives are also explored.

INDEX WORDS: Film industry, Electronic word-of-mouth, Network gatekeeping, Uses and gratifications, Twitter, Information seeking, Information forwarding

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DEDICATION

To my mother, who erased my homework until I did it right. You are my rock, my inspiration, and my courage. I love you.

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CHAPTER 1

INTRODUCTION

In 2011, the global movie industry reached \$32.6 billion, with the United States/Canada box office accounting for \$10.2 billion, drawing more attendance than theme parks and major U.S. sports combined. Despite a slight increase in ticket prices in 2011, the Motion Picture Industry of America (MPAA) boasts that movies provide one of the most affordable entertainment options at under \$40 for a family of four. According to the MPAA, more than two-thirds of the populations of the United States and Canada went to the movies at least once in 2011, with 12-24 year olds attending theaters most frequently (MPAA, 2011). Frequent moviegoers, defined by the MPAA as individuals who visit a theater 12 or more times in 12 months, represent only 10% of the population. Yet, frequent moviegoers drive ticket sales, purchasing half of all movie tickets.

Despite the size of the movie industry, films face growing competition from other entertainment media, including video games, cable television, and online video. This competition can push domestic advertising expenditures for larger films into the \$30-50 million range (MPAA, 2011). As with many other experience products, each film a studio produces is a new product with a short theatrical “shelf-life” that typically uses advertising to raise awareness. TV spots, which can deliver large audiences quickly, accounted for almost 75% of ad spending for theatrical releases in 2010, while spending in newspapers, magazines, and radio fell by double-digit percentages between 2008 and 2010 (Marich, 2011).

In 2011, most film marketing campaigns spent between 5% and 20% of their budgets on digital media, with movies targeting younger, more tech savvy audiences spending in the higher part of that range (MPAA, 2011). However, paid media placements, such as display ads and paid social media promotions, are not the only marketing presence films have online. Earned and owned media such as unpaid social media messages, official film websites, mobile apps, organic search, and publicity from film trailers used as editorial content are also part of a film's digital marketing strategy (MPAA, 2011).

Studios often show films to critics well in advance so that their reviews can be published or posted online, as well as quoted in advertisements, prior to a film's official release. Another strategy is "cold opening" a film, or not making the film available to critics prior to release. Studios may choose to do this if they expect poor critical reception and suspect audience expectations for the film to be fragile, which means negative reviews could hinder box office performance (Brown, Camerer, & Lovallo, 2012).

Purpose of the Research

Most gatekeeping research in mass communication centers on how media practitioners make decisions about the information that passes through gates. Gates are defined by Lewin (1951) as the entrance to communication channels or their sections and by Shoemaker (1991) as points where gatekeepers make "in" or "out" decisions. The decisions were traditionally based on practitioners' professional training along with subjective judgments, backgrounds, and prior experiences (Shoemaker, Eichholz, Kim, & Wrigley, 2001). However, the rise of Web 2.0 technologies puts non-practitioners, traditionally viewed in a largely passive position as "the gated," into a position to act as gatekeepers of information for their social networks through

citizen journalism and electronic word-of-mouth (eWOM) (Barzilai-Nahon, 2008; Lăzăroiu, 2011).

Research shows that because customers see eWOM as organic and reliable (Kozinets, de Valck, Wojnicki, & Wilner, 2010), it is generally considered more persuasive than paid advertising. Therefore, identifying the sources from which users seek out information about products online, the sources from which they are more likely to pass along information in the form of eWOM, and their motivations for such behavior is valuable to advertisers. This research centers on how users of social networking websites act as gatekeepers of information about experiential goods for their networks. Specifically, the following studies examine eWOM surrounding upcoming theatrical releases on Twitter.

The remainder of the text is organized as follows:

- Chapter 2 will present a review the literature, beginning with traditional gatekeeping models and network gatekeeping. It will continue with a discussion of social networks and Burt's (2000) structural hole theory. These concepts form the theoretical framework for study one. The literature review will then continue with an overview of uses and gratifications theory, motivations to engage in both traditional and electronic word-of-mouth, and research on social influence and information seeking, which form the theoretical framework for study two.
- In Chapter 3, the research questions for both studies are presented..
- Following the introduction of the research questions, Chapter 4 gives a brief overview of the methodologies.
- Chapter 5 will present a more detailed methodology for study one, along with the results of the network and content analyses.

- Similarly, Chapter 6 details the survey methodology and results for study two.
- Finally, Chapter 7 presents a discussion of the research, including contributions to the academic field as well as the advertising and film industries. The chapter closes with a discussion of the limitations of the two studies and directions for future research.

CHAPTER 2

LITERATURE REVIEW

In both online and offline contexts, customers actively seek out information from others to inform their purchase decisions (Arndt, 1967; Feick & Price, 1987; Lazarsfeld, Berelson, & Gaudet, 1984; Sun, Youn, Wu, & Kuntaraporn, 2006). Specifically for experiential goods such as movies, books, and music, customers often use word-of-mouth (WOM) to judge product quality and reduce risk before purchases (Chakravarty, Liu, & Mazumdar, 2010; Chen, 2008; Dhar & Chang, 2009; Prendergast, Ko, & Yuen, 2010). WOM refers to “unpaid interpersonal communication between people connected through a communication channel” (Sun et al., 2006, p.1107), while eWOM specifies that such communication takes place electronically.

The recent explosive growth of both eWOM and critical reviews posted on the Internet (Chakravarty et al., 2010) makes it important to understand how this information flows through online networks. As Prendergast et al. (2010) indicate, the Internet allows compelling information to spread like a virus and have a greater impact much more quickly than its offline counterpart. However, eWOM is similar to offline WOM in that individuals still must actively decide to pass on a piece of information through one or more of the many communication channels available to them.

This chapter explores how and why individuals engage in eWOM. First, a review of gatekeeping theory and social networks provide a framework for understanding how social structures influence online information flow. Then, overviews of uses and gratifications theory and social influence theory provide a framework for understanding why eWOM spreads at the

individual level. Finally, a summary of past research on motivations to engage in WOM and eWOM and a review of the information seeking literature provide additional insights into individuals' reasons for participating in eWOM conversations.

Gatekeeping Theory

Gatekeeping theory has its origins in Lewin's (1947) description of the channels through which food travels to reach the family table. Lewin's work provided theorists a framework under which to analyze selectivity in the communication process and a term—"gatekeeper"—by which to refer to the individuals and institutions that exhibited control over information (Shoemaker & Vos, 2009). Today, gatekeeping theory spans many disciplines including mass communication, political science, sociology, information science, management, and law (Barzilai-Nahon, 2008).

In mass communication research, Shoemaker et al. (2001) define gatekeeping in its simplest form as "the process by which the vast array of potential news messages are winnowed, shaped, and prodded into those few that are actually transmitted by the news media" (p. 233). In this vein, most mass communication gatekeeping research focuses on how media professionals'—specifically newspaper editors'—professional training and subjective judgments shape their decisions (Barzilai-Nahon, 2008). These decisions include determining both the content of messages and their placement in relation to other messages (Shoemaker & Vos, 2009). Consistent with these two types of gatekeeping decisions, Laidlaw (2010) identifies two roles of gatekeepers: (1) gatekeepers that control or limit access to information; and (2) gatekeepers that play the role of "innovator, change agent, communication channel, link, intermediary, helper, adapter, opinion leader, broken, and facilitator" (Laidlaw, 2010, p. 264).

During the gatekeeping process, communicators shape information about an event into a message (Shoemaker & Vos, 2009). For journalists, most of the information that passes through

this first gate comes from routine channels, which are largely non-spontaneous sources such as public records and media events (Berkowitz, 1987; Sigal, 1973). Companies can attempt to influence gatekeeping decisions by crafting messages in the form of news releases that are attractive to gatekeepers (Shoemaker & Vos, 2009). Such reliance on “patterned, routinized, repeated practices for forms that media workers use to do their jobs (Shoemaker et al., 2001, p. 48)” reflects the “routines” level of gatekeeping (Gieber & Johnson, 1961). The “individual” level of gatekeeping, in contrast, focuses on individuals’ backgrounds, values, interpretations, and experiences and their impact on the information those individuals let pass through gates (Barzilai-Nahon, 2008). Gatekeeping also includes larger-scale organizational, institutional, and social system levels (Shoemaker & Vos, 2009); however the rise of Web 2.0 technologies has introduced new opportunities to further examine the ways in which Internet users act as gatekeepers on the individual level, both within a journalistic context through citizen journalism (Lăzăroiu, 2011) and in other communication settings, such as spreading eWOM about products and services. Specifically, network gatekeeping theory provides a framework for analyzing how individuals become gatekeepers within these Web 2.0 information networks. An overview of this theory follows.

Network gatekeeping. While traditional research on gatekeeping views gatekeeping as a phenomenon involving gatekeepers, the movement of tangible or intangible goods through a gate, and gatekeeping processes (e.g., selecting, channeling, manipulating, or deleting information), “the gated,” or those gates are imposed upon, are also an important consideration. Network gatekeeping theory explores gatekeeping through the analysis of the political and social relationships between gatekeepers and the gated (Barzilai-Nahon, 2008). Network gatekeeping examines the ability of actors to use a gatekeeping mechanism, defined by Barzilai-Nahon

(2008) as “a tool, technology, or methodology used to carry out the process of gatekeeping” (p. 1496), to exercise control over both the information they receive and the information they pass along. Therefore, a major assumption of network gatekeeping is that the gated have the ability to circumvent gatekeepers and gatekeeping mechanisms in their search for information (Barzilai-Nahon, 2008). This allows for information creation by the gated, whereas traditional models suggest that only established gatekeepers produce information freely.

Consistent with this theory, Web 2.0 technologies allow the gated to also assume the role of gatekeeper as they create content and manage their online environments (Laidlaw, 2010). This results in a more fluid view of the roles of gatekeeper and gated, creating an infinite number of possible gatekeeper-gated relationships. Laidlaw offers the example of a blogger who, “might be gated by the terms of service of the blog provider, yet might also man the gates of the comments section of his or her blog” (2010, p. 266). Similarly, users of social networking websites may choose which individuals and brands they receive information from as well as those they share information with. As their name suggests, these websites allow users to connect to one another to form social networks that mirror the structure of other networks found in sociological, biological and technological research (Barabási, 2003). The next section presents an overview of the social networks approach and how it has been used to study information flow.

Social Networks

The social networks approach centers on the assumption that human behavior can be studied by analyzing the links between individual actors in a social network as opposed to focusing on attributes of individual actors. A network is “a specific [type] of relation linking a defined set of persons, objects, or events” (Knoke & Kuklinski, 1982, p.12). Social networks form any time people interact or otherwise form relationships with one another (Hansen,

Shneiderman, & Smith, 2011). This approach is especially relevant to studying social influence because research suggests that the structure of relationships between actors in a network determines how effectively information flows through that network (Katona, Zubcsek, & Sarvary, 2011). For example, the presence or absence of ties between two network actors impacts whether information can flow directly between them (Knoke & Kuklinski, 1982). Burt's structural hole theory, discussed next, provides a lens by which to view important actors in the diffusion of information in a social network.

Structural holes. Burt defines structural holes as “the gaps between nonredundant contacts” (1997, p. 341) in a given network. The presence of a structural hole in a network indicates separate information flows within that network. Because access to information allows actors in a network to gain and retain power, individuals who bridge structural holes can be seen as information gatekeepers in the network (Gloor, 2005; Gloor, Krauss, Stefan, Fishbach, & Schoder, 2009). Networks rich in structural holes are fertile ground for what Burt refers to as “entrepreneurial behavior.” In the case of online movie reviews or buzz, this may mean bloggers and other individuals stepping up into gatekeeping roles previously held by professional critics. As new sources of information gain prominence, the high social capital enjoyed by leaders who previously had few peers is eroded. Therefore, the structure of eWOM networks can give insight into the relative importance of professional movie critics and other information sources leading up to and following a film's theatrical release.

While network concepts, such as structural holes, provide insight into the impact of social organization on information flow, they do not offer individual-level explanations for the spread of eWOM. The remainder of this chapter focuses on the psychological processes that contribute to the decisions of individuals within a network to seek and share information. Specifically, uses

and gratifications theory, social influence theory, and research on information seeking and motives to engage in eWOM are discussed.

Uses and Gratifications Theory

Research has shown that people choose from both interpersonal and mediated channels when seeking to fulfill needs for social interaction or information gathering. These choices are based on the availability and an individual's perception of the medium as well as the need that individual seeks to fill (Rubin, 1994; Papacharissi & Rubin, 2000). Uses and gratifications theory, therefore, examines the reasons users select media rather than the effects of media on those users.

This theory operates on the assumption that audiences actively use media to satisfy specific needs or wants rather than passively consuming content. Therefore, uses and gratifications research focuses on motives for using media, factors that influence those motives, and the outcomes of that media use (Papacharissi & Rubin, 2000; Blumler & Katz, 1974). Motives fulfilled by new media span three categories: interpersonal needs, needs that traditional media also fulfill, and needs specific to new media (Papacharissi & Rubin, 2000). Media outcomes, or gratifications, can come from three sources: media content, media exposure, and social context (Blumler & Katz, 1974). The next section explores gratifications through a review of previous research on consumers' motivations to engage in WOM and eWOM.

Motivations to Engage in WOM and eWOM

Research in the fields of consumer behavior, psychology, and sociology suggests that subjective feelings, or "affect," generated through consumption experiences play a substantial role in post-consumption behaviors such as engaging in WOM or eWOM (Westbrook, 1987; Sundaram, Mitra, & Webster, 1998). Sundaram et al. (1998) identified four categories of

motivation for engaging in positive WOM: altruism, product involvement, self-enhancement, and helping the company. Altruism involves doing something for others without anticipating rewards or recognition in return. In a WOM context, this includes individuals sharing their consumption experiences to aid other consumers in their decision-making. A related motivation category—helping the company—involves an act of altruism intended to support a company rather than other consumers. Conversely, the self-enhancement motive deals with consumers' desire to portray themselves as savvy or intelligent shoppers, to project expertise, or otherwise their enhance social status. Product involvement encompasses personal interest, perceived product importance, and product use, which can lead to excitement and venting positive feelings through WOM.

Likewise, the researchers also identified four categories of motivations for engaging in negative WOM: altruism, anxiety reduction, vengeance, and advice seeking. In this context, altruism serves to aid other consumers by warning them about or protecting them from a bad purchase decision. Consumers who engage in negative WOM do so to ease their anger, anxiety, or frustration following an unsatisfactory purchase experience. Similarly, consumers with a vengeance motive share negative experiences with the aim of deterring others from patronizing a particular company. Finally, the advice-seeking category of motivation deals with consumers sharing negative WOM in an attempt to solicit advice from others on how to resolve the problems they experience with a product or service.

These motives correspond roughly with Balasubramanian and Mahajan's (2001) five identified categories of eWOM communication motives, which include focus-related utility, consumption utility, approval utility, moderator-related utility, and homeostasis utility. In the specific context of forwarding information from other sources, research suggests that the content

of eWOM messages must meet consumers' standards of quality or relevance in order for them to pass it along to others (Phelps, Lewis, Mobilio, Perry, & Raman, 2004).

Motivations for seeking eWOM from other consumers offer important insights into pre-release buzz for experiential products such as movies because the majority of consumers have not had firsthand experience with the product. Goldsmith and Horowitz (2006) found that consumers seek opinions online for a wide variety of reasons, including to reduce risk, get information, and because it's "cool," a result consistent with previous findings that consumers use product review websites to obtain both information and reassurance (Bailey, 2005). Furthermore, they found consumers' online information seeking can be both spontaneous (e.g., simply "stumbling upon" information online) and deliberately planned, and is likely to vary across social situations and product types. Such variability makes social influence an important factor to consider when analyzing consumer motivations seek eWOM from others.

Social Influence and Information Seeking

Research on social influence identifies source credibility, tie strength, and homophily as key determinants in consumers' information seeking behavior (Brown, Broderick, & Lee, 2007). Wenburg and Wilmo define source credibility as "the degree of believability or acceptability a receiver gives to a source" (1973, p.140). Evaluations of source credibility can range from high to low based on perceptions of information providers' competence in terms of expertise and how prone they are to bias (Brown et al., 2007). Research has shown that, in general, behavioral influences are higher when persuasive messages come from highly credible sources (Brown et al., 2007; Dholakia & Sternthal, 1977; Bansal & Voyer, 2000).

Because source credibility is a phenomenon of the receiver or message decoder rather than an inherent property of the encoder, perceptions of credibility can change across audiences

as well as communication situations (Wenburn & Wilmo, 1973). Individuals may perceive a source as having expertise if that source possesses greater awareness or knowledge of a particular industry or product (Mitchell & Dacin, 1996). Katz and Lazarsfeld identified such individuals as opinion leaders who “tend to be both more generally exposed to the mass media, and more specifically exposed to the content most closely associated with their leadership” (2006, p. 316), noting that individuals who may be opinion leaders in one field are not necessarily influential in another.

Tie strength deals with the closeness of the relationship between information seeker and information source. Money, Gilly, & Graham (1998) define tie strength as “a multidimensional construct that represents the strength of the dyadic interpersonal relationships in the context of social networks” (p. 97). The dimensions of tie strength are closeness, intimacy, support, and association (Brown et al., 2007; Frenzen & Davis, 1990). Tie strength can range from strong to weak on the basis of the number of resources exchanged and the frequency and intimacy with which they are exchanged (Marsden & Campbell, 1984). According to Walker, Wasserman, and Wellman (1994), strong ties between individuals are characterized by:

(a) a sense that the relationship is intimate and special, with a voluntary investment in the tie and a desire for companionship with the partner; (b) an interest in frequent interactions in multiple contexts; and (c) a sense of mutuality of the relationship, with the partner’s needs known and supported (p. 57).

Research on tie strength and information flows suggests individuals connected by strong ties interact and exchange information with one another more frequently than those connected by weak ties, and consequently share more WOM (Brown & Reingen, 1987; Brown et al., 2007). Additionally, because strong tie relationships are characterized by a higher frequency of

exchanges and more perceived social importance, information exchanged in them can be more likely to influence a receiver's behavior (Bansal & Voyer, 2000). However, individuals connected by strong ties tend to have more overlap in their social networks (Barabási, 2003), which can lead to the circulation of redundant information. On the other hand, research has shown weak ties to play an important role in the diffusion of job-related information (Granovetter, 1973) as well as WOM across different subgroups of a social system by exposing individuals to more nonredundant information (Brown & Reingen, 1987).

Homophily is a concept related to tie strength and refers to the extent to which members of a group share similar interests or other characteristics (Rogers, 1983; Brown et al., 2007). Because ties between similar people tend to be stronger (McPherson & Smith-Lovin, 1987), they predispose individuals to higher levels of interpersonal attraction, trust, and understanding and contribute to more homophilious relationships between individuals. Similarly to weak ties, heterophilious communication can facilitate information diffusion across groups.

This chapter reviewed the literature on gatekeeping, social networks, uses and gratifications, social influence, and information seeking as it relates to eWOM. Chapter 3 will draw from this literature review to frame the research questions that direct the remainder of this paper.

CHAPTER 3

RESEARCH QUESTIONS

Chapter 2 provided a review of research on gatekeeping, social networks, uses and gratifications, motivations to engage in eWOM, and social influence and information-seeking. This chapter attempts to bridge these diverse areas of research and presents seven research questions that direct the subsequent studies on the flow of movie eWOM on Twitter. First, gatekeeping theory and the network theory of structural holes provide a framework for identifying important actors in movie eWOM networks on Twitter. Then, uses and gratifications theory and social influence theory, along with research on information seeking and motivations to engage in eWOM frame research questions concerning the motives of individual actors who may appear in these networks.

While much research concerning eWOM focuses on the effects of online buzz or reviews on consumer demand (Dhar & Chang, 2009; Reinstein & Snyder, 2005) or brand equity (Bambauer-Sachse & Mangold, 2011), gatekeeping theory provides a framework by which to evaluate the role of individuals' information-seeking behavior in spreading eWOM about experiential products. Specifically, gatekeeping theory provides insight into the processes of selecting sources of eWOM for experiential products and sharing that information with an individual's social network.

Past network analyses have shown that Twitter eWOM networks are usually fairly loose knit (Vilpponen, Winter, & Sundqvist, 2010), indicating that the majority of actors in the network do not know each other and are instead connected by individuals with many followers

(i.e., hubs) who do not follow one another or, alternatively, individuals who serve as connectors between unrelated groups of people (i.e., bridges). These hubs and bridges, therefore, have a great degree of control over information flow in the network. Because these users can act as gatekeepers of movie eWOM, research questions one and two are as follows:

RQ1. What information sources serve as hubs in the Twitter eWOM networks leading up to and immediately following theatrical releases?

RQ2. What information sources serve as bridges in the Twitter eWOM networks leading up to and immediately following theatrical releases?

Identifying a user as a bridge simply means the individual fills a structural hole in the network by connecting members that would otherwise remain unconnected or only distantly connected. However, because Twitter is a directed network, ties between two users are not necessarily reciprocated. This directionality has implications for information flow; therefore, it is also important to distinguish between the different roles bridges may take on within a network. Here, the terms “talking bridges” or “talkers” refer to users who bridge structural holes by disseminating information to otherwise unconnected individuals. These users may represent opinion leaders and are similar to hubs in their ability to spread eWOM throughout the network quickly. In contrast, “listening bridges” or “listeners” bridge structural holes by seeking information from otherwise unconnected individuals. These users represent network actors that are particularly interested in a topic. Identifying talkers and listeners in a network may help movie marketers understand which users can help spread their messaging online and which users are most interested in receiving those messages. Therefore, research question three expands the second research question by taking Twitter’s network directionality into account:

RQ3a. What information sources serve as talking bridges in the Twitter eWOM networks leading up to and immediately following theatrical releases?

RQ3b. What information sources serve as listening bridges in the Twitter eWOM networks leading up to and immediately following theatrical releases?

Although network analysis offers the advantage of studying actual behavior patterns, it offers little insight into why Twitter users seek out and forward movie eWOM. Therefore, the remaining research questions concern users' motivations for information seeking and sharing.

Past research suggests that because of the relative difficulty in determining whether an individual's taste matches that of an online reviewer, the valence of eWOM may be less important than the volume of online mentions at building substantial buzz about an experiential product (Dhar & Chang, 2009), making individuals' decisions to pass along eWOM online a crucial area of study. However, Chakravarty et al. (2010) examined the differential impact of critical reviews and eWOM prior to movie releases and found that those who attended more movies had preferences closer to those of professional critics. They also found eWOM to be more persuasive to infrequent moviegoers while critical reviews influenced frequent moviegoers more strongly, consistent with the higher levels of trust associated with homophilious communication (Brown et al., 2007) and the relatively greater importance of tie strength over expertise when consumers' shopping motives are hedonic (Smith, Menon, & Sivakumar, 2003). Research questions four and five therefore ask:

RQ4: Do frequent moviegoers differ from nonfrequent moviegoers in the sources from which they are most likely to seek information on Twitter?

RQ5: Do frequent moviegoers differ from nonfrequent moviegoers in the sources from which they are most likely to share information on Twitter?

Finally, because uses and gratifications theory posits motivations provide important insights into consumer behavior (Hawkins, Best, & Coney, 2004; Goldsmith & Horowitz, 2006; Sundaram et al., 1998), and motivations can differ across information sources, the following research questions are proposed to explore the motivations of individuals' actions as gatekeepers of eWOM for their social networks:

RQ6. What motivates Twitter users to seek out movie information from (a) traditional media; (b) professional film critics; (c) bloggers; (d) online-only media; (e) official sources of movie information; (f) public figures; (g) friends and family?

RQ7. What motivates Twitter users to pass along movie information from (a) traditional media; (b) professional film critics; (c) bloggers; (d) online-only media; (e) official sources of movie information; (f) public figures; (g) friends and family?

This chapter proposed seven research questions stemming from the body of literature reviewed in Chapter 2. Identifying hubs and bridges in a social network allows marketers to target individuals who serve as gatekeepers in a network. These gatekeepers can either spread brand messages quickly to other users through eWOM (e.g., hubs, talking bridges) or may be more receptive to that messaging (e.g., listening bridges). Therefore, the first three research questions ask which Twitter users play these important roles in movie eWOM networks. While identifying important network actors is helpful, understanding why users appear as hubs and bridges in a network can give marketers richer insight into how they may influence other users. Consequently, the remaining four research questions delve into individual users' motivations to select movie eWOM information sources and forward messages from these sources to other users. Next, Chapter 4 will provide an overview of the two studies conducted to answer these questions.

CHAPTER 4

METHOD

To answer the research questions introduced in Chapter 3, two studies were conducted—a network analysis and an online survey. First, a network analysis of eWOM activity surrounding upcoming theatrical releases across one month was conducted to determine the extent to which media, experts, and other individuals act as gatekeepers of information about new films (RQ1, RQ2, & RQ3). The eWOM networks were collected through the Microsoft Excel add-on, NodeXL, and gatekeeper affiliations were identified through a content analysis of Twitter user descriptions. Previous network analyses in this area have examined eWOM for Internet campaigns (Vilpponen et al., 2010), adoption of social networks (Katona et al., 2011), and predictions of movies' box office success (Doshi, 2010).

One strength of using network analysis to identify hubs and bridges is that it allows for the examination of actual patterns of information flow rather than relying on individuals' recall of their information seeking and forwarding or reported behavioral intentions. However, this method does not provide explanations of why these patterns emerge. Therefore, study two used a survey of undergraduate students to determine whether likelihoods to seek out and share information from various sources differ between frequent and non-frequent moviegoers (RQ4 & RQ5). The survey also sought to identify individuals' motivations for selectively seeking out movie information on Twitter and choosing the information they spread to their own networks (RQ6 & RQ7).

The next two chapters will detail the methods and results of the studies described above. Specifically, Chapter 5 will describe the network and content analyses carried out for study one, and Chapter 6 will detail the survey conducted in study two.

CHAPTER 5

STUDY ONE—NETWORK ANALYSIS

To identify gatekeepers of movie information on Twitter, a network analysis was conducted on 35 eWOM networks surrounding nine movie releases. Following hub and bridge identification for each network, a content analysis was conducted to determine the affiliations of eWOM gatekeepers.

Method

Sample. Data were collected for the nine films with a nationwide release pattern in November 2012: *Wreck-It Ralph*, *The Man with the Iron Fists*, *Flight*, *Skyfall*, *The Twilight Saga: Breaking Dawn-Part 2*, *Life of Pi*, *Red Dawn*, *Rise of the Guardians*, and *Killing Them Softly* (IMDB, 2012; Variety, 2012). Twitter was selected as the online social network for analysis because not only do individuals use Twitter to connect with people in their offline social networks, but many traditional gatekeepers in the film industry (e.g., professional critics and media outlets) also have a Twitter presence. In addition, the nature of follower relationships allows individuals a high degree of control over the information they receive. This means that on Twitter, users can form unidirectional links to individuals whom they find interesting. The directionality of these links inherently suggests patterns of information flow (Hansen et al., 2011).

To construct a network of Twitter eWOM for these movies, tweets containing full movie titles¹ along with the word “movie” were captured using the open source Microsoft Excel add-in, NodeXL, during the weeks immediately preceding and following the film’s official nationwide release date. Table 1 presents the official movie titles and search strings used for data collection. Limiting the data in this way ensured the resulting network was centered around eWOM for the upcoming movie.

Table 1. Full movie titles and search strings for data collection in NodeXL

Official Movie Title	Search String
Wreck-it Ralph	wreck it ralph movie
The Man with the Iron Fists	iron fist movie
Flight	flight movie
Skyfall	skyfall movie
The Twilight Saga: Breaking Dawn, Part 2	breaking dawn movie
Life of Pi	life of pi movie
Red Dawn	red dawn movie
Rise of the Guardians	rise of the guardians movie
Killing Them Softly	killing them softly movie

Collecting data only during the two weeks surrounding a movie’s release is appropriate because opening weekend is widely recognized as the most important for ticket sales (Chen, Liu, & Zhang, 2011), and WOM communication directly leading up to and following a movie’s release captured both pre-release and post-release buzz. Additionally, Chen et al. (2011) found that the number of critical reviews published by 14 newspapers and entertainment publications peaked on movies’ release dates with the three days before and next day after release also

¹ For the films *The Man with the Iron Fists* and *The Twilight Saga: Breaking Dawn, Part 2*, the abbreviated titles “Iron Fist” and “Breaking Dawn” used to promote the movies was used in place of the full title. This allowed NodeXL to capture tweets containing either the full, official title, or the shorter version more compatible with Twitter’s 140-character limit for tweets.

receiving a substantial number of reviews, which suggests a two-week timeframe will capture a substantial amount of the buzz surrounding each film.

Data collection occurred from November 1, 2012 to December 3, 2012. Data was collected once a day for fifteen days (seven days before release, on the day of release, and seven days after release) surrounding each movie's official theatrical release. Each Twitter topic network dataset captured the most recent 1,000 tweets available through Twitter's Application Programming Interface (API) containing the specified keywords. In many cases, this produced large amounts of overlap in the pre-release datasets. Therefore, only the datasets collected on the day prior to a film's release were analyzed. Overlap also occurred in the post-release datasets; however, it was most severe in the later datasets. Therefore, datasets for the three days following a film's official release were also included. For one film, *The Man with the Iron Fists*, only two post-release datasets (one and three days after release) were analyzed because of the amount of overlap between the second post-release dataset and the other two post-release datasets.

Hub and bridge identification. Analysis of the 35 selected eWOM networks centered around members' in-degrees and betweenness centralities to determine their respective importance in the eWOM network. In-degree measures the number of directed connections pointing to a node. Betweenness centrality captures how often an individual lies on the shortest path connecting two other individuals in the network (Hansen et al., 2011). Hubs and bridges for each dataset were identified using the Graph Metrics tool in NodeXL to calculate in-degree, out-degree, and betweenness centrality measures for each node in the network. Scree plots were created for each of these metrics in all 35 networks to identify cut off values for hubs and bridges.

To determine who the important information sources in the eWOM network were, nodes identified as either hubs or bridges were coded through a content analysis of the users' Twitter profile descriptions. In instances when the Twitter user did not provide a publicly available description on his or her profile or if the provided description was unclear, coders checked the profile for a hyperlink, and the content of the linked website was used to determine the users' affiliation. If neither a user description nor a hyperlink was present, the user was coded as "unknown." If a blue "verified badge"—Twitter's way of designating official accounts for public figures and organizations—appeared on the user's profile page, a Google search was conducted to determine affiliation.

Coding categories. Two independent coders first classified the 357 hubs and bridges into five categories: film industry, media, no affiliation, other affiliation, or unknown. For users associated with the film industry, coders were asked to code the nature of that affiliation as either Official Film Twitter Account, Studio/Production Company/Distribution Company, Producer, Director, Cast Member, Writer, Other Crew, Movie Theater, or Other. For users affiliated with media outlets, coders were asked to code both the type of outlet (newspaper, magazine, television, radio, book publisher, blog/vlog, online-only news outlet, fan site/online community, or other website) and the nature of the user's affiliation with that outlet (the organization itself, owner/founder/sole contributor, contributor, or unknown). Users with no apparent affiliation were classified as entertainers, other public figures, or unknown. Finally, for accounts with a "media" affiliation, coders determined whether the affiliation was movie specific as well as whether the user was a film critic. For a detailed description of coding categories, see the full coder manual in Appendix A.

Results

Sample characteristics. Edges classified as “tweets” were filtered out of the network, leaving only follow, mention, and reply relationships between users. Overall graph metrics were calculated using the Graph Metrics function in NodeXL. “Vertices” refers to the number of Twitter users in the network. Unique edges refers to the number of vertex pairs in the network connected by at least one tie (follow, mention, or reply). Edges with duplicates refers to the number of vertex pairs with more than one relationship between them (e.g., a follow relationship and a mention relationship). Total edges are the total number of connections in that network. Connected components are groups of vertices that are connected to each other but to no other vertices in the network. Metrics for maximum vertices and edges represent the number of users and the number of connections between those users, respectively, in the largest group in the network (Hansen et al., 2011). The metrics for each dataset are presented in Table 2.

Hubs and bridges. Scree plots of users’ in-degrees, out-degrees, and betweenness centralities were created for each of the 35 networks. Nodes with in-degrees above the breaking point in each scree plot were categorized as hubs (H) for that network (N=179). Likewise, nodes with betweenness centralities above the breaking point in the betweenness centrality scree plots were categorized as bridges (B; N=178). Because the directionality of Twitter ties is important to understanding information flow, bridges were further categorized into talkers (T) and listeners (L). Bridges that were categorized as “talkers” (N=98) had both in-degree and betweenness values above the breaking point, and bridges that were considered “listeners” (N=19) had both out-degree and betweenness values above the breaking point in their respective scree plots. Because these categories are not mutually exclusive, a user with unusually high in-degree, betweenness centrality, and out-degree measures compared to the rest of the network may be

Table 2: Overall graph metrics for Twitter movie eWOM datasets

Dataset	Vertices	Unique Edges	Edges With Duplicates	Total Edges	Connected Components	Maximum Vertices in a Connected Component	Maximum Edges in a Connected Component
Flight Pre Release (11/1)	493	574	108	682	96	204	301
Flight Post Release 1 (11/3)	281	273	60	333	99	20	21
Flight Post Release 2 (11/4)	228	207	65	272	77	30	33
Flight Post Release 3 (11/5)	410	431	50	481	102	160	193
Iron Pre Release (11/1)	442	610	40	650	44	343	542
Iron Post Release 1 (11/3)	435	659	98	757	58	297	602
Iron Post Release 2 (11/5)	487	738	56	794	52	374	679
Ralph Pre Release (11/1)	450	603	117	720	70	252	473
Ralph Post Release 1 (11/3)	331	399	81	480	72	48	116
Ralph Post Release 2 (11/4)	440	556	264	820	55	325	692
Ralph Post Release 3 (11/5)	334	311	184	495	94	73	111
Skyfall Pre Release (11/8)	533	791	360	1151	34	459	1074
Skyfall Post Release 1 (11/10)	436	491	46	537	59	238	272
Skyfall Post Release 2 (11/11)	422	606	243	849	57	292	705
Skyfall Post Release 3 (11/12)	407	540	124	664	78	136	284
Twilight Pre Release (11/15)	258	407	34	441	39	169	345
Twilight Post Release 1 (11/17)	353	516	60	576	89	125	285
Twilight Post Release 2 (11/18)	407	432	98	530	92	174	217

Dataset	Vertices	Unique Edges	Edges With Duplicates	Total Edges	Connected Components	Maximum Vertices in a Connected Component	Maximum Edges in a Connected Component
Twilight Post Release 3 (11/19)	394	458	146	604	143	27	72
Pi Pre Release (11/20)	507	1127	111	1238	61	338	817
Pi Post Release 1 (11/22)	383	494	156	650	68	201	395
Pi Post Release 2 (11/23)	266	295	101	396	81	36	119
Pi Post Release 3 (11/24)	333	346	102	448	61	192	285
Guardians Pre Release (11/20)	455	1092	94	1186	53	324	1002
Guardians Post Release 1 (11/22)	266	284	54	338	78	81	116
Guardians Post Release 2 (11/23)	265	189	163	352	72	74	134
Guardians Post Release 3 (11/24)	235	242	52	294	82	43	52
Dawn Pre Release (11/20)	397	504	114	618	115	68	111
Dawn Post Release 1 (11/22)	262	234	102	336	109	9	14
Dawn Post Release 2 (11/23)	323	331	142	473	125	10	17
Dawn Post Release 3 (11/24)	303	323	82	405	118	17	36
Killing Pre Release (11/29)	547	1314	180	1494	28	475	1342
Killing Post Release 1 (12/1)	449	751	114	865	72	277	656
Killing Post Release 2 (12/2)	426	506	195	701	53	286	552
Killing Post Release 3 (12/3)	427	568	191	759	49	303	625

categorized as a hub as well as both types of bridges. Figure 1 presents an example in-degree scree plot for the pre-release dataset for the film *Flight*.

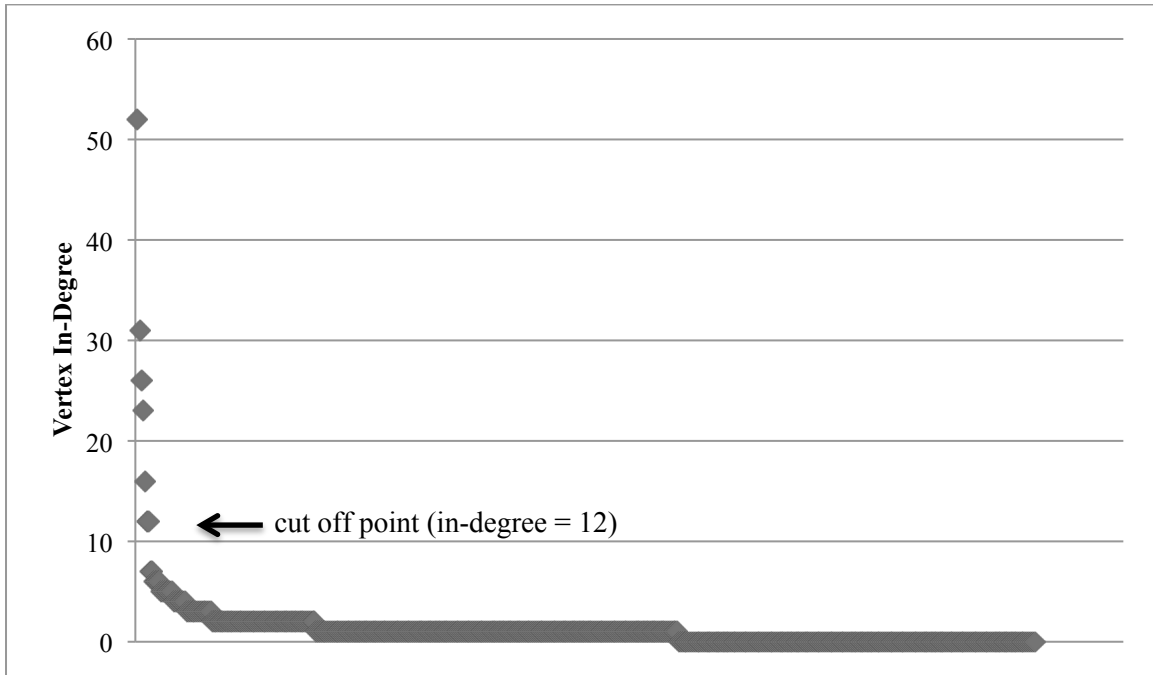


Figure 1. In-degree scree plot for the pre-release *Flight* dataset

A second method was used to check the validity of hub and bridge selection. Because few nodes in a network will play these important roles, users with in-degrees, out-degrees, and betweenness centralities more than two standard deviations above the mean in each dataset were also selected and compiled into a list (Goldenberg, Han, Lehmann, & Hong, 2009). This list was compared with the scree plot-based list and was found to be nearly identical. Tables 3 - 11 present the hubs and bridges in each movie eWOM network and their in-degree, out-degree, and betweenness centralities that fell above their respective cutoff values.

Table 3. *Flight* eWOM network hubs and bridges

Dataset	User	in-degree	out-degree	betweenness	role(s)
Pre-release	BET	52	--	20417.152	H, B(T)
	GAFollowers	31	--	--	H
	VibeMagazine	26	--	10025.089	H, B(T)
	vulture	23	--	18269.410	H, B(T)
	nytimesarts	16	--	6568.217	H, B(T)
	AMCTheatres	12	--	7143.953	H, B(T)
	nytimesmovies	12	--	--	H
	AndreHarrisonJr	--	--	6523.423	B
	daniellemuller	--	--	5990.828	B
Post-release 1	AMCTheatres	9	--	284.000	H, B(T)
	sebastianbach	7	--	186.000	H, B(T)
	CinescapeQ8	7	--	--	H
	arielmayy	4	--	--	H
	MishRene	--	--	168.000	B
Post-release 2	ElliottWilson	15	--	734.000	H, B(T)
	FAIZONLOVE	6	--	260.000	H, B(T)
	YSouthSide	5	--	--	H
	gafmde	5	--	--	H
	kandyce007	--	--	276.000	B
	Natural617	--	3	248.000	B(L)
Post-release 3	Therealkiss	79	4	22422.000	H, B(T,L)
	AMCTheatres	16	--	9848.000	H, B(T)
	Stefano	14	--	--	H
	SuperKingFame	--	--	6640.000	B
	PMarizzle	--	--	5356.000	B
	MikeSirois	--	5	5086.000	B(L)
	MookTrillTight	--	6	4362.000	B(L)
	muzikscribe	--	--	4320.000	B

Table 4. *The Man with the Iron Fists* eWOM network hubs and bridges

Dataset	User	in-degree	out-degree	betweenness	role(s)
Pre-release	RZA	71	5	62383.402	H, B(T,L)
	DjKingAssassin	49	--	32003.380	H, B(T)
	GlobalGrind	31	--	30942.723	H, B(T)
	michaelsmith	27	--	19411.080	H, B(T)
	982thebeat	27	--	--	H
	eliroth	23	6	31131.456	H, B(T,L)
	nytimesarts	19	--	--	H
Post-release 1	eliroth	80	--	53892.476	H, B(T)
	SaraUnderwood	43	--	13500.116	H, B(T)
	GlobalGrind	30	--	20096.595	H, B(T)
	DaveBautista	24	--	14634.389	H, B(T)
	VibeMagazine	23	--	16127.397	H, B(T)
	YahooMovies	18	--	--	H
	AubzKelly	--	--	15163.354	B
Post-release 2	RZA	148	9	85459.979	H, B(T,L)
	BusaBusss	95	--	46768.694	H, B(T)
	russellcrowe	46	--	30916.263	H, B(T)
	IronFists	32	--	--	H
	DaveBautista	31	--	--	H

Table 5. *Wreck-it Ralph* eWOM network hubs and bridges

Dataset	User	in-degree	out-degree	betweenness	role(s)
Pre-release	TIME	100	--	44258.143	H, B(T)
	Cinemit	--	8	10886.151	B(L)
Post-release 1	itsEllaCruz	18	7	1059.000	H, B(T,L)
	suelee1998	13	--	555.866	H, B(T)
	brettbmartin	11	--	804.502	H, B(T)
	TheQuestCrew	11	--	--	H
	gretchenho	10	--	823.000	H, B(T)
	ComplexMag	10	--	--	H
	Chris_Stuckmann	10	--	--	H
	lifesandcastle	10	--	--	H
	AuthorGaleLaure	--	--	928.408	B
	dvdinfatuation	--	--	921.000	B
	Blogcritics	--	--	884.000	B
	ellamazing21	--	--	691.000	B
Post-release 2	boxofficemojo	93	--	86446.365	H, B(T)
	jeronteng	64	--	29109.172	H, B(T)
	gmanews	33	--	48501.031	H, B(T)
	StefanieScott1	25	--	--	H
	rmpilar	--	--	44800.000	B
	BreakingPH	--	--	44550.000	B
	MacKidSuze	--	--	19460.051	B
Post-release 3	martinbroda	20	--	--	H
	comicsalliance	13	--	3336.000	H, B(T)
	mommye	12	--	2717.533	H, B(T)
	moviesdotcom	9	--	--	H
	ErikDavis	7	--	1746.667	H, B(T)
	ShempGames	--	--	2592.867	B
	lolatron	--	--	1717.000	B

Table 6. *Skyfall* eWOM network hubs and bridges

Dataset	User	in-degree	out-degree	betweenness	role(s)
Pre-release	piersmorgan	158	--	80309.540	H, B(T)
	nytimes	117	--	67548.614	H, B(T)
	RollingStone	83	--	47843.075	H, B(T)
	wolflblitzer	78	--	18069.201	H, B(T)
	boxofficemojo	62	--	37845.666	H, B(T)
Post-release 1	IMDb	182	--	55173.867	H, B(T)
Post-release 2	newtgingrich	191	--	61590.675	H, B(T)
	chrislhayes	67	--	--	H
	LOLGOP	48	--	--	H
	TVGuide	--	--	17341.512	B
	NikkiFinke	--	--	11574.502	B
Post-release 3	usweekly	30	--	--	H
	latimesmovies	20	--	3286.370	H, B(T)
	bongqiuqiu	19	--	--	H
	morningmoneyben	13	--	--	H
	MotherJones	11	--	2487.918	H, B(T)
	RovinNation	11	--	--	H
	sonyclassics	--	--	5591.043	B
	Celebrityjustin	--	--	3808.000	B
	Chris_Moody	--	--	3175.194	B

Table 7. *The Twilight Saga: Breaking Dawn, Part 2* eWOM network hubs and bridges

Dataset	User	in-degree	out-degree	betweenness	role(s)
Pre-release	EW	64	--	14526.144	H, B(T)
	usweekly	31	--	5331.654	H, B(T)
	YahooMovies	22	--	--	H
	someecards	21	--	4291.899	H, B(T)
	vulture	21	--	3666.418	H, B(T)
Post-release 1	iKidrauhlAlways	27	--	5726.452	H, B(T)
	KristenSupport_	22	--	3641.691	H, B(T)
	TeamBearRK	22	--	2518.810	H, B(T)
	MadBoutRob	20	--	2085.271	H, B(T)
	BieberCore	12	--	2437.004	H, B(T)
	KidrauhlStates	11	--	--	H
	EverythingKS	11	--	--	H
	NerdGlassesStew	--	9	4506.927	B(L)
	twihard0	--	--	4212.666	B
	_robertforever2	--	--	3981.011	B
	AmaliaAigalew	--	--	3216.705	B
	KidrauhlStates	--	--	2579.991	B
Post-release 2	TheBoysWho	139	--	29412.000	H, B(T)
	_callmeSWATS	--	--	5024.000	B
	__Swank	--	--	4768.000	B
Post-release 3	uhh_niyahh	8	--	--	H
	xoxo_reighanna	7	--	330.667	H, B(T)
	ChelllllseaLynn	6	5	150.000	H, B(T,L)
	jordanjiaire	6	--	--	H
	TatianaRunsThis	5	--	269.333	H, B(T)
	yannobekkerz	5	--	--	H
	coolio_nicolio	5	--	--	H
	logan_wenzel	5	--	--	H
	__taylorjay	--	--	230.667	B
	CrystalJayx3	--	--	176.000	B
	amariah_bro	--	4	139.000	B(L)
	aleexisdanielle	--	--	126.333	B
	Rachella_Marie	--	--	125.667	B
	Hollyw00dSmile	--	--	98.000	B

Table 8. *Life of Pi* eWOM network hubs and bridges

Dataset	User	in-degree	out-degree	betweenness	role(s)
Pre-release	nytimesarts	30	--	15422.306	H, B(T)
	BollywoodNext	30	--	--	H
	nytimesmovies	29	--	16263.140	H, B(T)
	PublishersWkly	27	--	27148.047	H, B(T)
	vulture	24	--	--	H
	NYMag	21	--	21369.187	H, B(T)
	LifeofPiMovie	21	--	15607.830	H, B(T)
	albumartin	19	--	14709.034	H, B(T)
	joblocom	18	--	--	H
	ZeeStudioIndia	18	--	--	H
	KentTheG	17	--	--	H
	JDotComma	16	--	--	H
	moviesdotcom	--	--	17966.156	B
	fatamo	--	--	14224.699	B
	librarianfonz	--	--	14091.191	B
Post-release 1	rupertmurdoch	78	--	29289.961	H, B(T)
	DeShobhaa	34	--	11052.394	H, B(T)
	mihirfadnavis	22	8	11198.563	H, B(T,L)
	RM_Team	22	--	--	H
	irrfan_k	14	--	--	H
	ashpalathingal	--	--	8796.896	B
Post-release 2	ddeguzman	27	8	607.573	H, B(T,L)
	LifeofPiMovie	25	--	1096.000	H, B(T)
	ICONuggets	12	--	--	H
	FUSCOGOTSWAG26	9	--	--	H
	i5peak	--	--	468.000	B
	ashutoshbn7	--	--	446.000	B
Post-release 3	ebertchicago	87	--	31825.736	H, B(T)
	GhantaGuy	18	4	9985.000	H, B(T,L)
	LifeofPiMovie	--	--	7226.227	B

Table 9. *Rise of the Guardians* eWOM network hubs and bridges

Dataset	User	in-degree	out-degree	betweenness	role(s)
Pre-release	HuffingtonPost	47	--	42408.896	H, B(T)
	Fandango	24	--	11847.637	H, B(T)
	moviezadda	24	--	--	H
	IMAX	19	--	31479.603	H, B(T)
	devincf	19	--	--	H
	nytimesarts	18	--	13486.624	H, B(T)
	badassdigest	17	--	--	H
	misterpatches	17	--	--	H
	JHoffman6	17	--	--	H
	GermainLussier	15	--	--	H
	moviesdotcom	15	--	--	H
	Ror_velmax	--	--	21164.000	B
	getschooled	--	--	20803.650	B
	Fanlala	--	--	20664.000	B
	Movie Jungle	--	--	12012.030	B
Post-release 1	moviesdotcom	14	5	3660.000	H, B(T,L)
	PasteMagazine	13	--	3860.000	H, B(T)
	PrettyMuchIt	6	--	--	H
	shockya	6	--	--	H
	thewhopperjaw	--	--	1848.000	B
	charliejane	--	--	1788.000	B
	Cinemit	--	6	1724.000	B(L)
	cegoodman2	--	--	1400.000	B
	jessiesarah	--	--	1328.000	B
Post-release 2	cinema21	72	--	5252.000	H, B(T)
Post-release 3	EW	26	--	1428.000	H, B(T)
	BlackNerd	9	--	554.667	H, B(T)
	FilmFanMan23	--	5	868.333	B(L)

Table 10. *Red Dawn* eWOM network hubs and bridges

Dataset	User	in-degree	out-degree	betweenness	role(s)
Pre-release	YahooMovies	24	--	2077.057	H, B(T)
	RedDawnFilm	15	--	1285.252	H, B(T)
	KYcountryboy2	13	--	570.000	H, B(T)
	moviesdotcom	10	--	1278.167	H, B(T)
	NextMovie	9	--	760.238	H, B(T)
	marcusgilmer	--	--	732.000	B
	Ten_Foot_Midget	--	--	628.000	B
	Movie_Jungle	--	6	600.749	B(L)
	nytimesarts	--	--	550.067	B
Post-release 1	markschlereth	8	--	56.000	H, B(T)
	avarlese23	4	--	--	H
Post-release 2	ChinxDrugz	9	--	70.000	H, B(T)
	MEAN_MARINE	7	--	48.000	H, B(T)
	waltspy	4	--	--	H
	elloweezy	4	--	--	H
	Who_Me_Too	--	--	16.000	B
	sheila14all	--	--	16.000	B
Post-release 3	MelissaTweets	7	--	152.000	H, B(T)
	JoAnnEileen	7	4	112.000	H, B(T,L)
	mikeryan	6	--	61.000	H, B(T)
	CThomasHowell	6	--	--	H
	KarsonKirkland	5	--	--	H
	NKoreaReports	--	--	112.000	B
	jljzen	--	--	108.000	B
	ProudAmerican82	--	--	71.667	B

Table 11. *Killing Them Softly* eWOM network hubs and bridges

Dataset	User	in-degree	out-degree	betweenness	role(s)
Pre-release	ebertchicago	123	--	69053.178	H, B(T)
	nytimes	113	--	90984.984	H, B(T)
	UncleRUSH	43	--	27912.948	H, B(T)
	YahooMovies	43	--	20036.514	H, B(T)
	DrewAtHitFix	40	--	--	H
	akstanwyck	35	--	--	H
	EricDSnider	31	--	--	H
	vulture	31	--	--	H
	EricVespe	31	--	--	H
	mattsinger	31	--	--	H
	joblocom	30	--	--	H
	JoliePittOnline	--	14	20929.959	B(L)
	rog_smith	--	--	18799.551	B
Post-release 1	MotherJones	72	--	33925.931	H, B(T)
	VanityFair	46	--	27342.436	H, B(T)
	ropeofsilicon	27	--	7726.122	H, B(T)
	davechensky	25	--	--	H
	moviesdotcom	23	--	--	H
	Devindra	22	--	--	H
	moviefone	20	--	8294.095	H, B(T)
	misterpatches	19	--	--	H
	directormaxcole	--	--	8485.600	B
Post-release 2	hughhefner	92	--	48855.446	H, B(T)
	MotherJones	61	--	33198.611	H, B(T)
	davechensky	29	--	--	H
	Devindra	22	--	15803.021	H, B(T)
Post-release 3	hughhefner	98	--	58730.986	H, B(T)
	MotherJones	38	--	22584.158	H, B(T)
	indiewire	27	--	21956.389	H, B(T)
	joblocom	24	14	12508.794	H, B(T,L)
	blackrepublican	22	--	19708.173	H, B(T)
	tboznchilli	--	--	18895.516	B

Network visualizations. Following hub and bridge identification, each of the 35 networks was visualized in NodeXL. Vertices were grouped by connected component and presented using the Harel-Koren Fast Multiscale layout with each connected component appearing in a separate box. Smaller connected components are presented using the grid layout. Each point represents an individual Twitter user, or vertex. Each line connecting vertices represents a follow, mention, or reply relationship between the vertices. Arrows indicate the direction of the relationship.

Vertex in-degrees are mapped to vertex size, with the smallest corresponding to a vertex size of 1.5 and the largest in-degree in the network corresponding to a vertex size of 10, unless otherwise noted. Vertex out-degrees are mapped by color from blue to red, with vertices with the lowest out-degrees presented as blue and the highest presented as red. Finally, bridges are identified in the network as diamond-shaped nodes while non-bridges are depicted as circles. All hubs and bridges are labeled with the corresponding user's Twitter handle in the same color as the vertex. Figures 2-10 present the network visualizations for the movies *Flight* (Figure 2); *The Man with the Iron Fists* (Figure 3); *Wreck-it Ralph* (Figure 4); *Skyfall* (Figure 5); *The Twilight Saga: Breaking Dawn, Part 2* (Figure 6); *Life of Pi* (Figure 7); *Rise of the Guardians* (Figure 8); *Red Dawn* (Figure 9); and *Killing Them Softly* (Figure 10).

Content analysis. To establish intercoder reliability, the researcher and a second graduate student coded 32 (approximately 10% of the sample) hubs and bridges from two movie eWOM networks not included in the sample: *The Hobbit: An Unexpected Journey* and *Playing for Keeps*. Both films had a nationwide release in December 2012. These datasets were captured using NodeXL, and hubs and bridges were identified using the same procedures detailed above. Coders discussed the coding process and manual, then proceeded to independently code the sample. After this initial coding, a P/L Index was calculated for each of the coding categories.

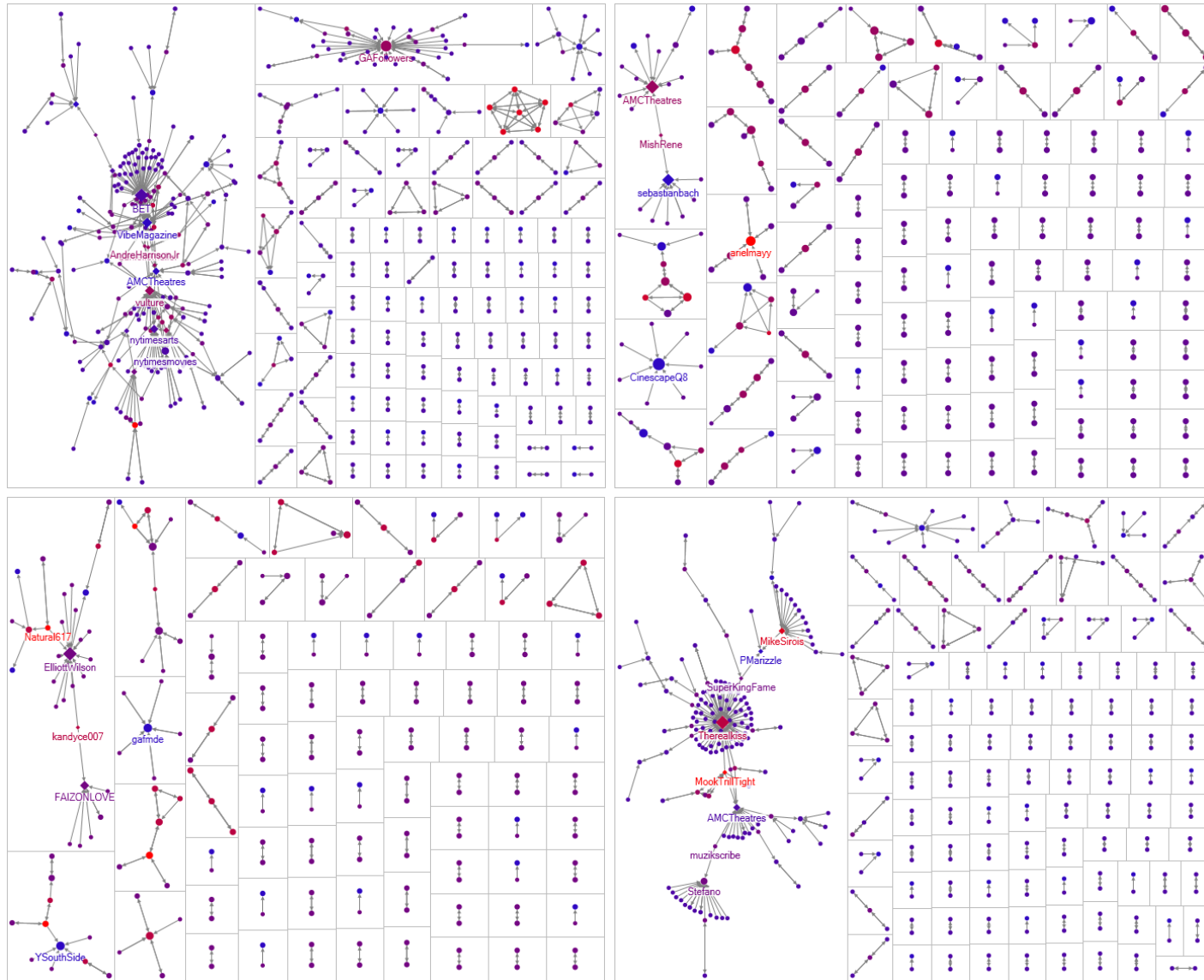


Figure 2. Twitter eWOM networks for *Flight*. Networks collected one day prior to theatrical release (top-left), one day post-release (top-right), two days post release (bottom-left), and three days post-release (bottom-right) are pictured.

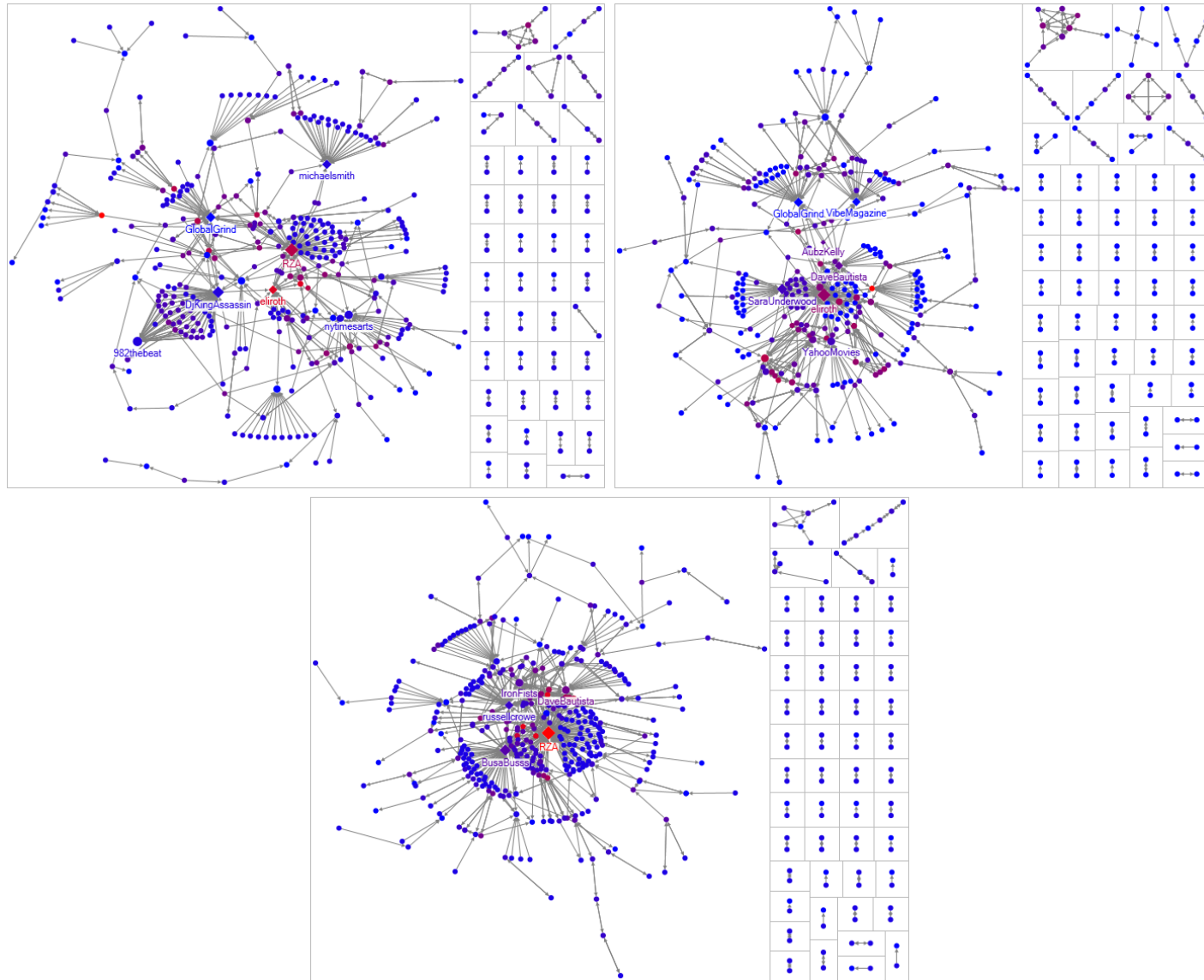


Figure 3. Twitter eWOM networks for *The Man with the Iron Fists*. Networks one day prior to release (top-left) and one day (top-right) and three days (bottom) post-release are pictured. The second post-release dataset is not pictured because of data overlap.

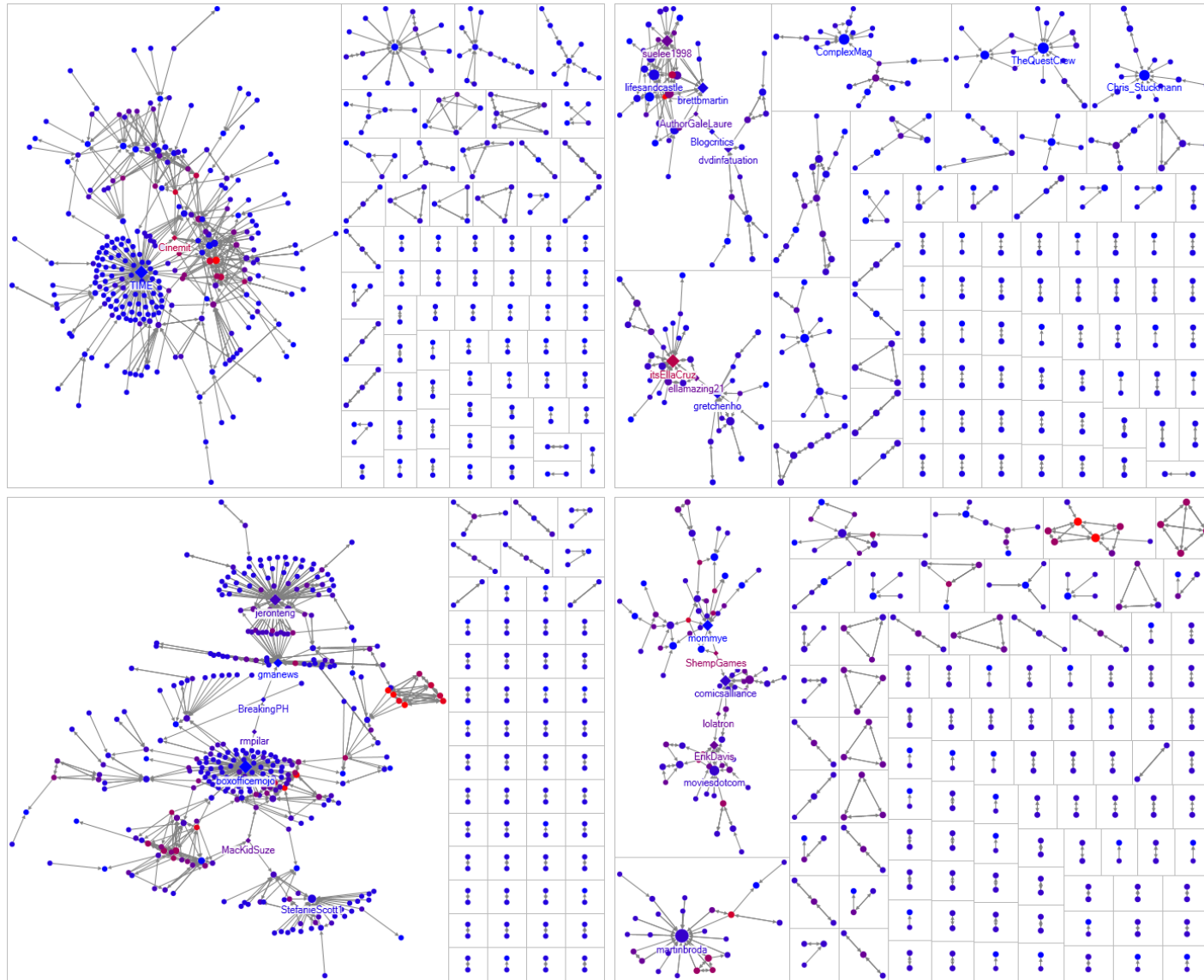


Figure 4. Twitter eWOM networks for *Wreck-it Ralph*. Networks collected one day prior to its theatrical release (top-left), one day post-release (top-right), two days post release (bottom-left), and three days post-release (bottom-right) are pictured.

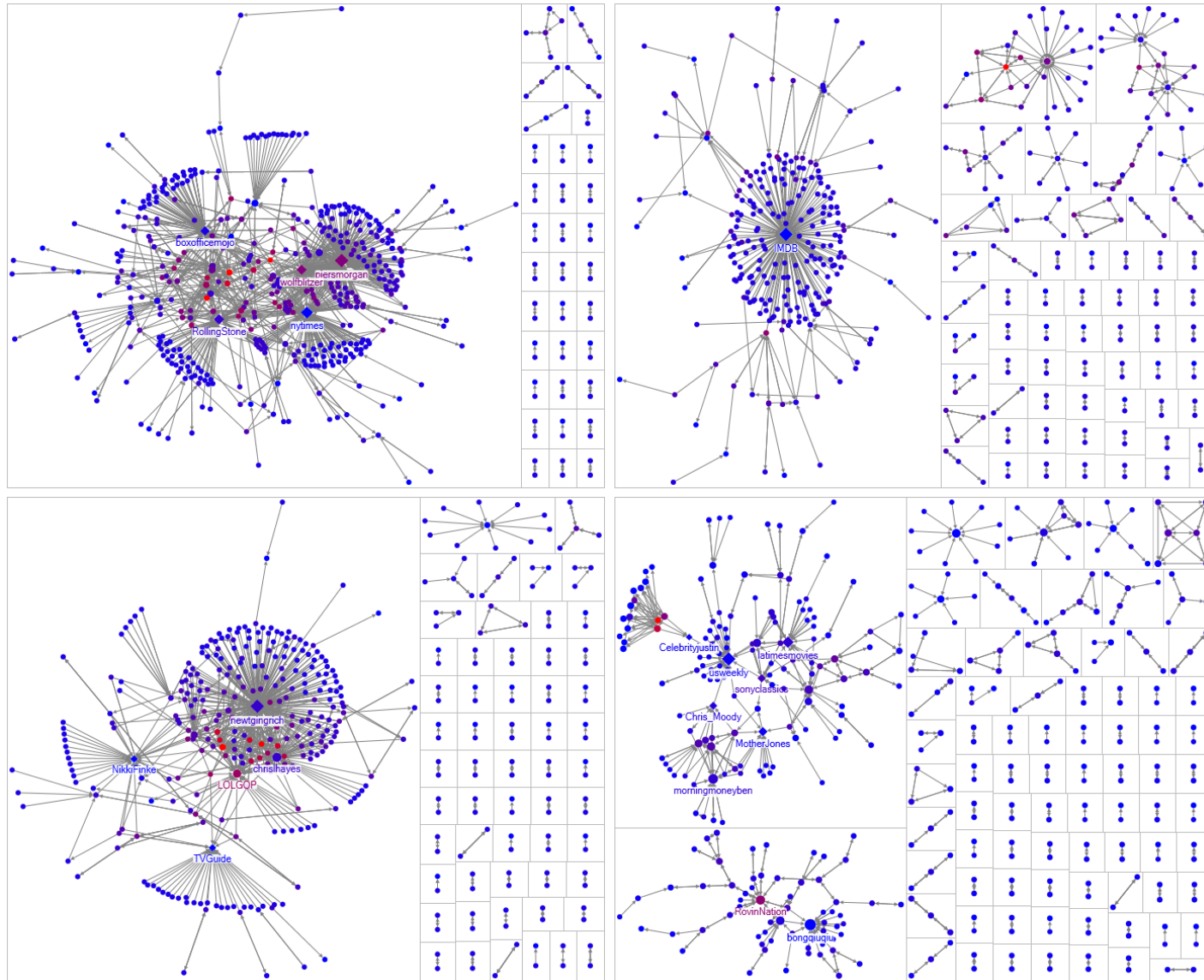


Figure 5. Twitter eWOM networks for *Skyfall*. Networks collected one day prior to its theatrical release (top-left), one day post-release (top-right), two days post release (bottom-left), and three days post-release (bottom-right) are pictured.

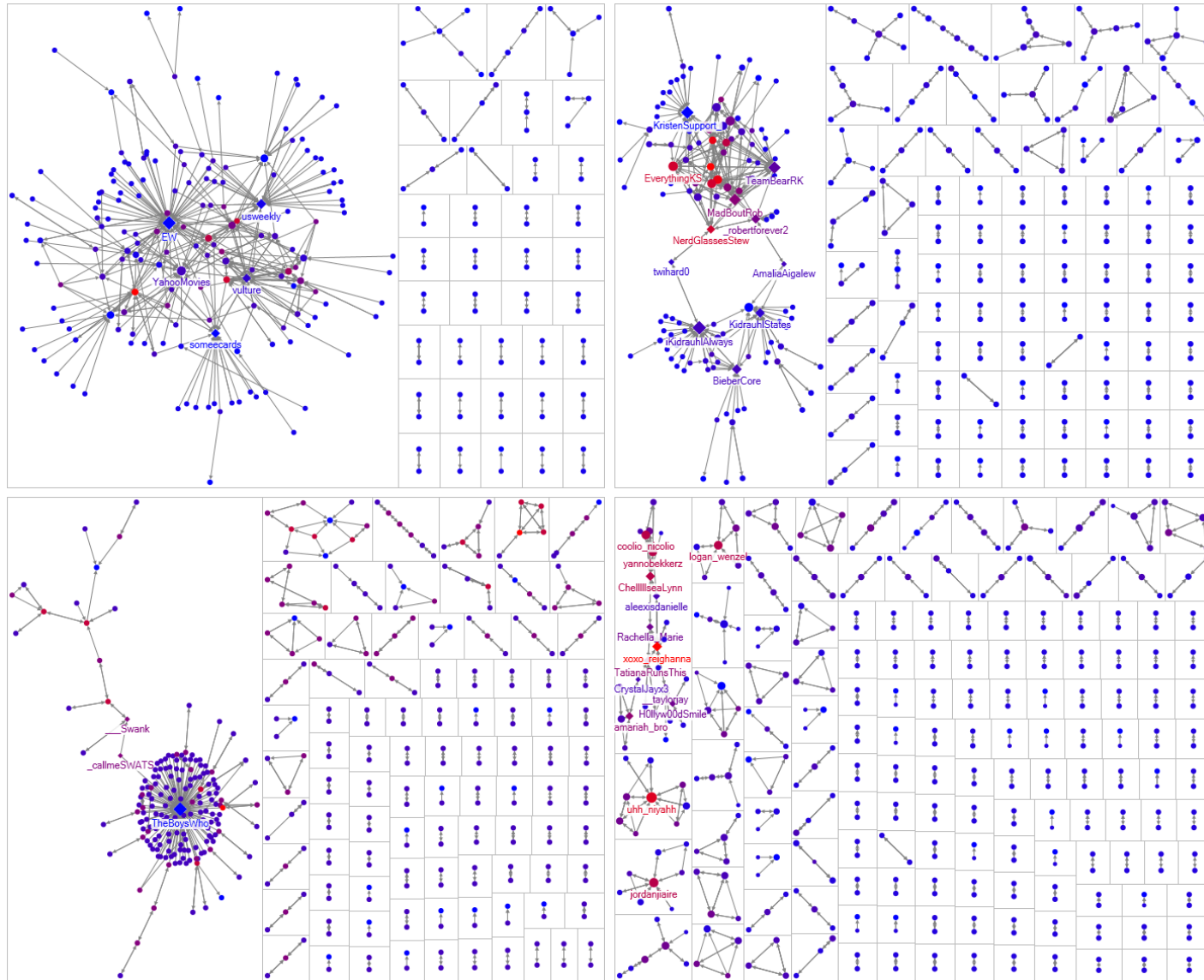


Figure 6. Twitter eWOM networks for *The Twilight Saga: Breaking Dawn, Part 2*. Networks collected one day prior to theatrical release (top-left) and one day (top-right), two days (bottom-left), and three days (bottom-right) post-release are pictured.

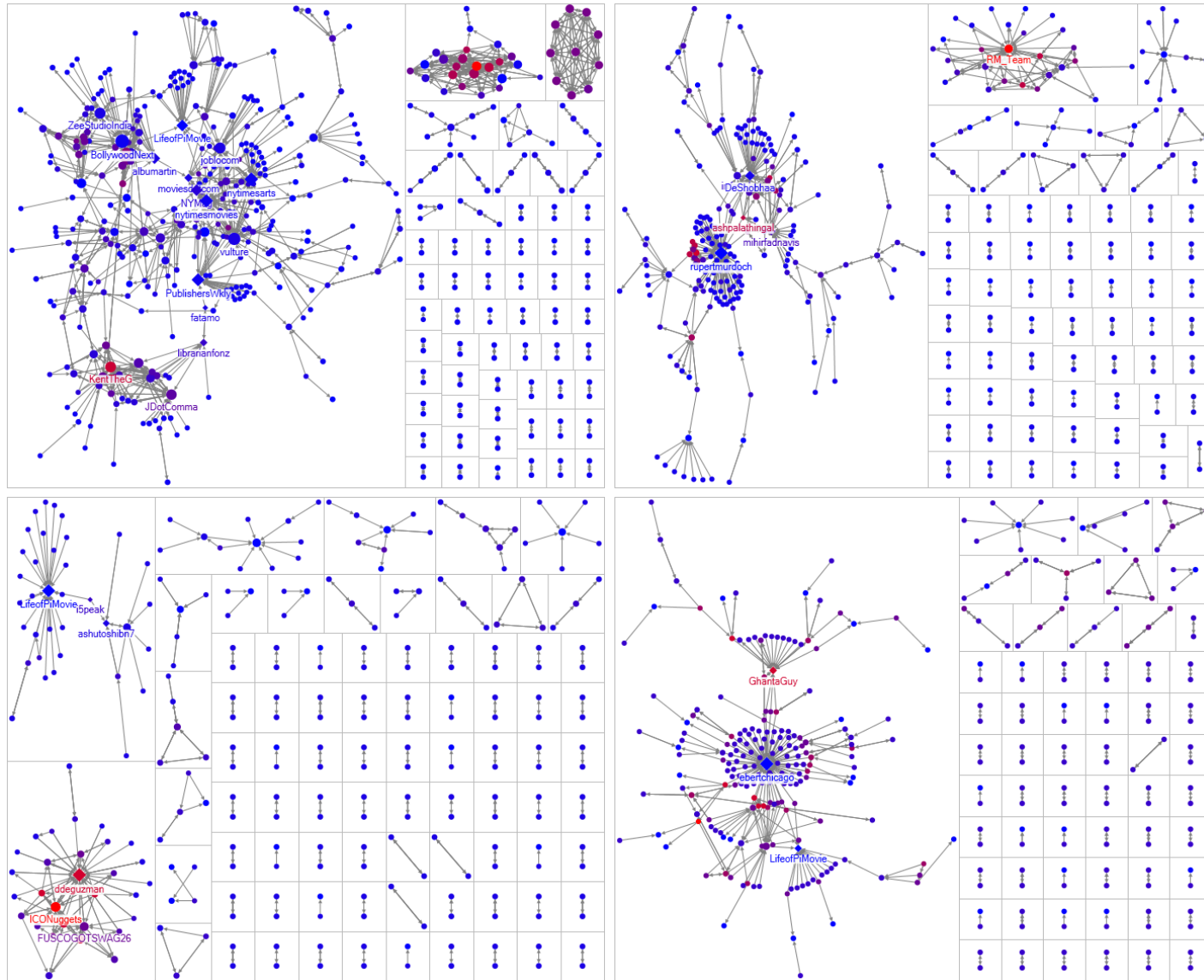


Figure 7. Twitter eWOM networks for *Life of Pi*. Networks collected one day prior to theatrical release (top-left), one day post-release (top-right), two days post release (bottom-left), and three days post-release (bottom-right) are pictured.

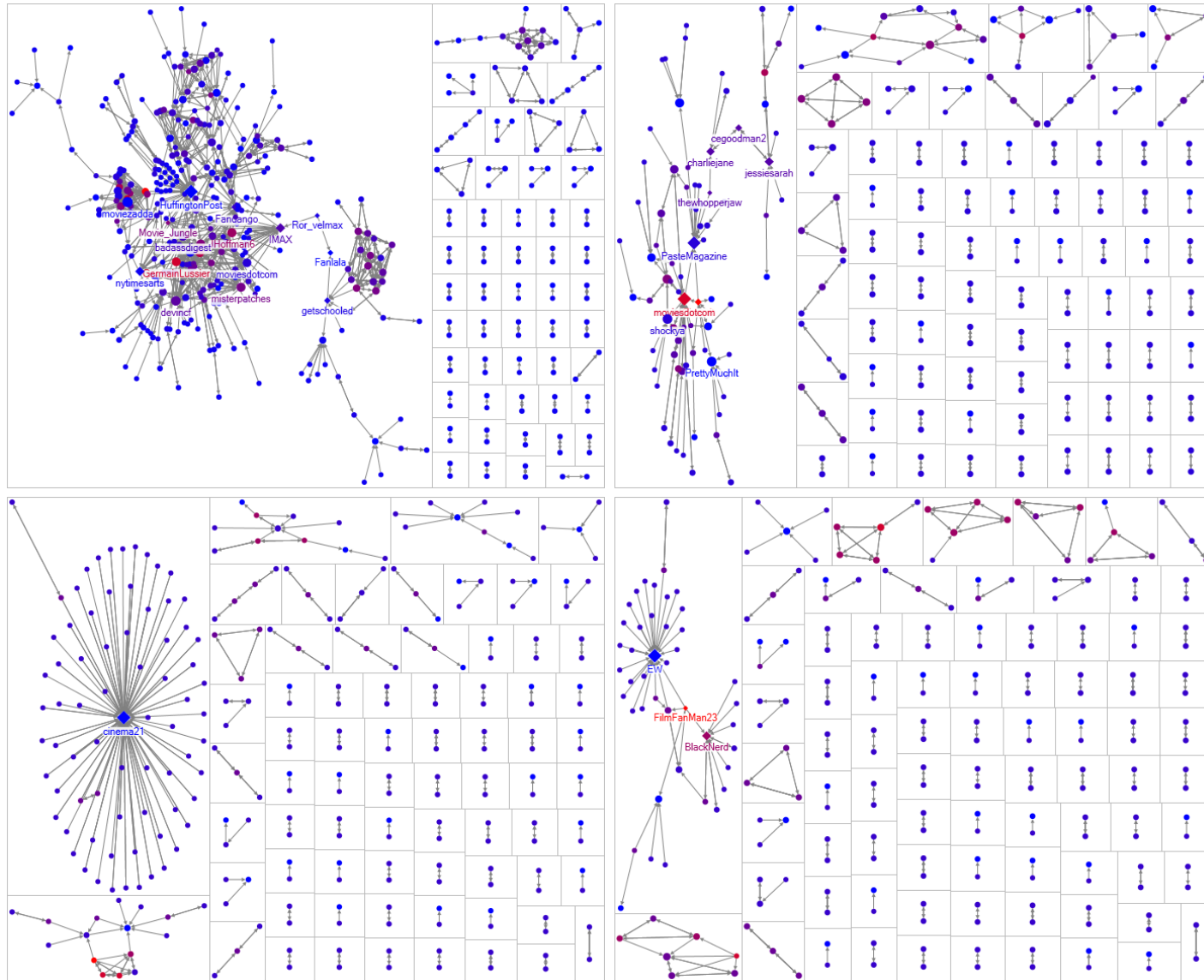


Figure 8. Twitter eWOM networks for *Rise of the Guardians*. Networks collected one day prior to theatrical release (top-left), one day post-release (top-right), two days post release (bottom-left), and three days post-release (bottom-right) are pictured.

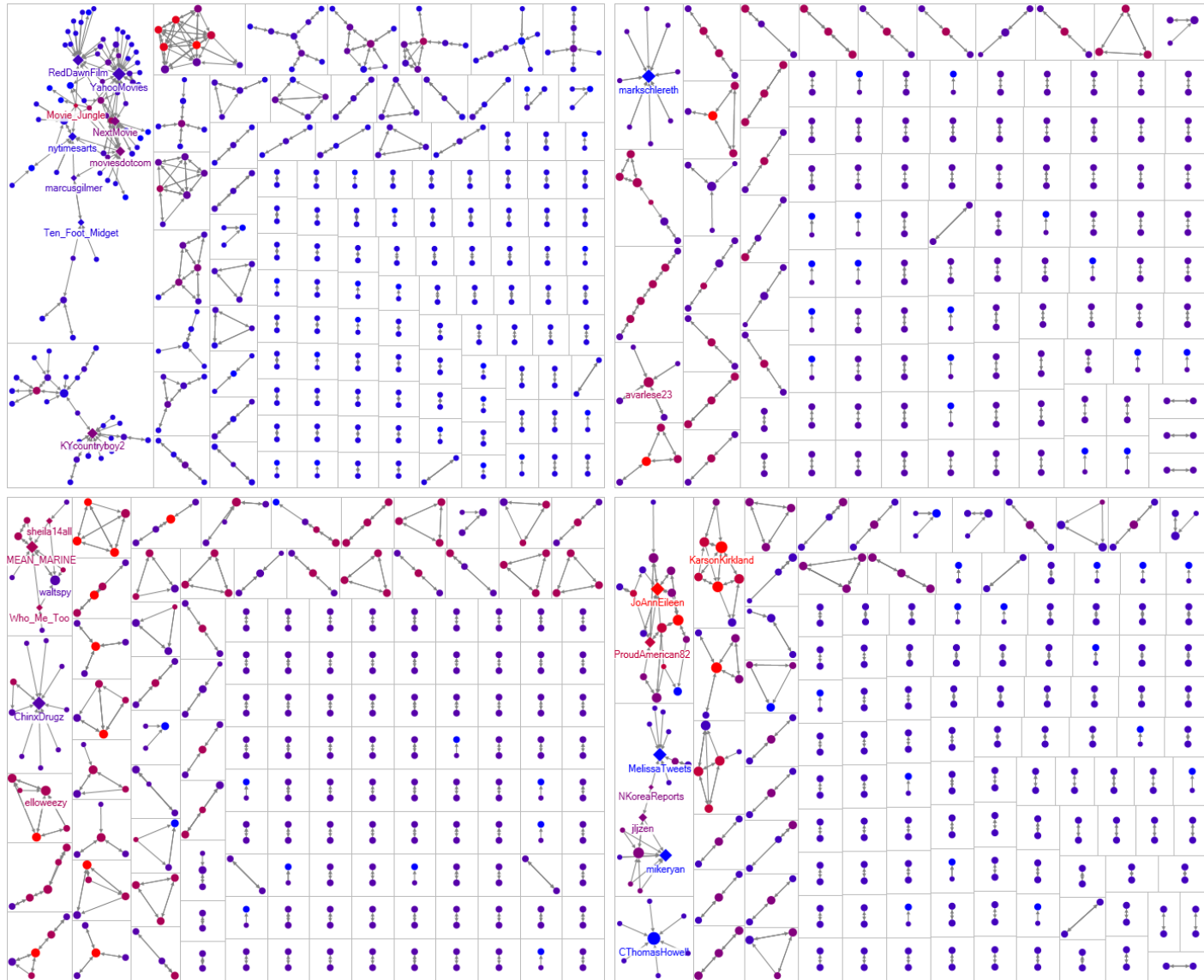


Figure 9. Twitter eWOM networks for *Red Dawn*. Networks collected one day prior to theatrical release (top-left), one day post-release (top-right), two days post release (bottom-left), and three days post-release (bottom-right) are pictured.

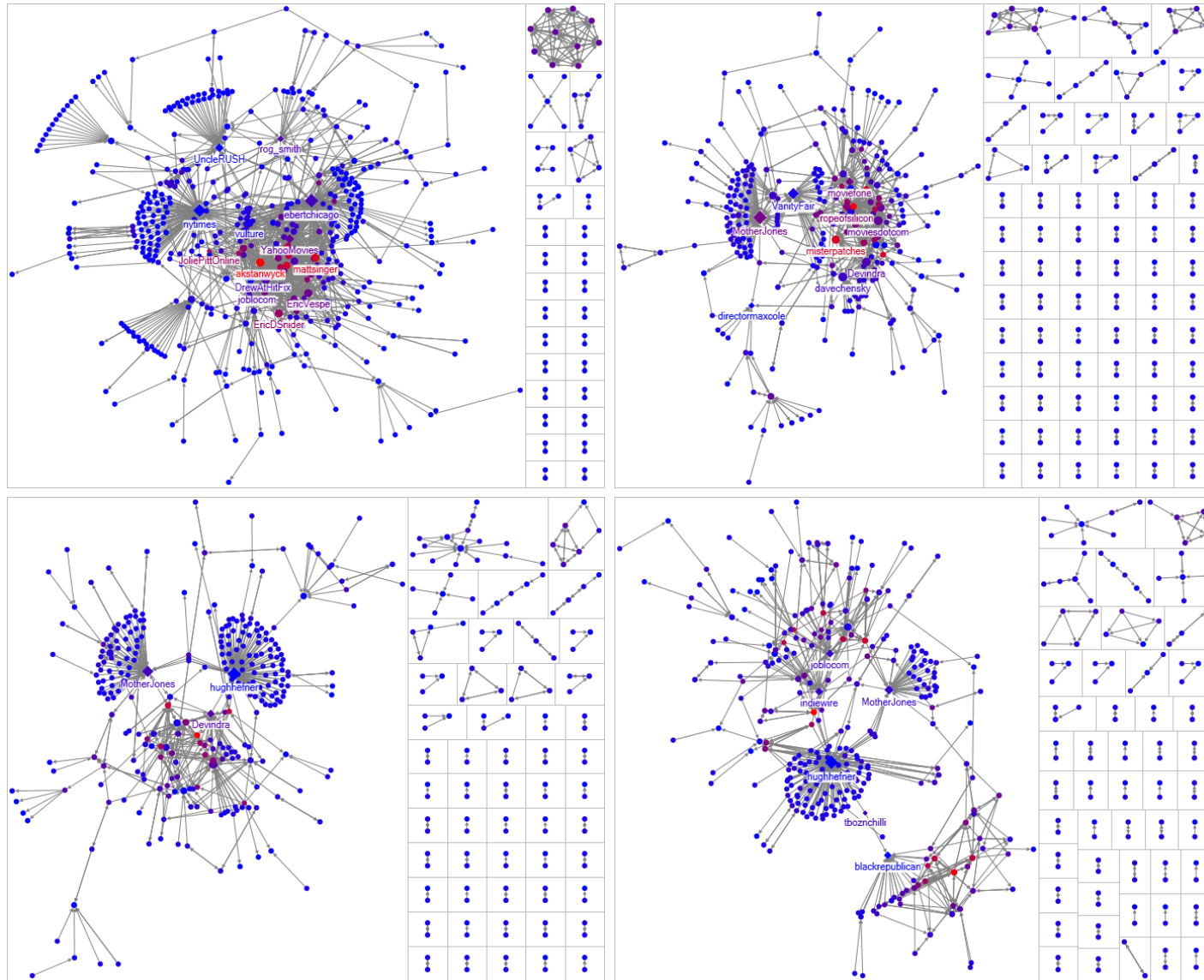


Figure 10. Twitter eWOM networks for *Killing Them Softly*. Networks collected one day prior to theatrical release (top-left), one day post-release (top-right), two days post release (bottom-left), and three days post-release (bottom-right) are pictured.

All P/L indices for the pre-test fell above 0.8, as detailed in Table 12. The coders discussed coding disagreements, and the coder manual was updated to increase intercoder reliability before the coders proceeded to coding the full sample. After independently coding the full sample, a second P/L index was calculated for each of the coding categories. All indices fell above 0.9, with the exception of the category “Movie?”, which contained several typographical errors and had a P/L index of .87. The coders again reviewed the coding disagreements and agreed upon the appropriate coding for each case.

Table 12. P/L indices for pre-test and main coding of movie eWOM network hubs and bridges

Coding Category	Pretest	Main Coding
Source	0.85	0.91
Film Industry Role	0.98	1.00
Media Type	0.81	0.91
Media Role	0.81	0.90
No Affiliation	0.88	0.91
Movies	0.82	0.87
Critic	0.82	0.93

Of the 350 hubs and bridges analyzed, 61.1% (214) were categorized as media, 25.7% (90) as no affiliation, 10.6% (37) as film industry, and 0.6% (2) as other industry. At the time of coding, 2% (7) of users had either inactive accounts or accounts with no user description or profile link from which to code them and were classified as “unknown.” The two users with affiliations other than film or media and the seven unknown users were categorized as “missing” and not coded further.

Of the 37 users categorized as belonging to the film industry, 27.0% (10) were movie theaters, 16.2% (6) were cast members of one of the nine films analyzed, 21.6% (8) were official movie Twitter accounts, 10.8% (4) were directors, 10.8% (4) were writers, 2.7% (1) were movie studios, and 10.8% (4) were other individuals or organizations affiliated with the industry.

Within the media category, 57.9% (124) of vertices were the official Twitter handles for media organizations, 22.4% (48) were owners of, founders of, or the sole contributors to media outlets, and 11.1% (39) were contributors to one or more media outlets. Concerning the type of medium, 33.2% (71) were online-only news outlets, 22.9% (49) were blogs, 11.7% (25) were newspapers, 16.4% (35) were magazines, 7.0% (15) were television, 4.2% (9) were fan sites or online communities, 2.8% (6) were radio, and 1.9% (4) were some other type of website. For users coded as having no affiliation, 66.7% (60) were unknown, 28.9% (26) were entertainers, and 4.4% (4) were other public figures. Finally, for the 304 users with a media or no affiliation, 25.3% (77) included the words “movie” or “film,” and 7.5% (23) self-identified as film critics or movie reviewers in their descriptions.

To answer research questions one and two, the dataset was filtered first by hubs, then by bridges, and the same analyses were run.

RQ1: What information sources serve as hubs in the eWOM networks leading up to and immediately following theatrical releases? Of the 350 Twitter users analyzed, 175 were hubs in their eWOM networks. Of these, 65.7% (115) were associated with media, 20.6% (36) had no affiliation, 11.4% (20) were associated with the film industry, 0.6% (1) were associated with an industry other than film or media, and 1.7% (3) were classified as unknown—either they did not provide a user description or profile link, or the account was inactive. The unknown users were

categorized as missing and are not included in further analyses. The remaining frequencies were significantly different, $X^2(3, N = 172) = 175.023, p < .05$.

Of the 115 hubs classified as media, 11.3% (13) were associated with newspapers, 15.7% (18) with magazines, 7.8% (9) with television, 3.5% (4) with radio, 22.6% (26) with blogs, 33.9% (39) with online-only news, 4.3% (6) with fan sites/communities, and 0.9% (1) with other websites. These frequencies were significantly different, $X^2(7, N = 115) = 80.687, p < .05$.

Users varied in the nature of their association with the identified media, with 58.3% (67) accounts representing media organizations or specific vehicles, 22.6% (26) representing the owner, founder, or sole contributor to the organization, 18.3% (21) representing a contributor, and the nature of 0.9% (1) of users' affiliations were unknown. The differences between these frequencies were statistically significant, $X^2(3, N = 115) = 82.026, p < .05$. Of these 115 media-affiliated accounts, 39.5% (45) were film-specific, meaning the words film or movie appeared in either the hub's Twitter handle or user description.

Of the 20 hubs associated with the film industry or representing official film communication, 20.0% (4) were official Twitter accounts for films, 10.0% (2) were directors, 20.0% (4) were cast members, 10.0% (2) were writers, 25.0% (5) were movie theaters, and 15.0% (3) were affiliated with the industry in some other way. These frequencies were not significantly different, $X^2(5, N = 20) = 2.200, ns$.

For the 36 hubs with no affiliation, 38.9% (14) were entertainers, 5.6% (2) were other public figures, and 55.6% (20) were unknown. These frequencies were statistically significant, $X^2(2, N = 36) = 14.000, p < .05$. Finally, of the 149 hubs with either a media or no affiliation coded for the category "critic?", 9.4% (14) self-identified as film critics. All 14 of these users

were categorized as being affiliated with media, and this difference in frequencies was significant, $X^2(1, N = 149) = 4.923, p < .05$.

RQ2: What information sources serve as bridges in the eWOM networks leading up to and immediately following theatrical releases? Of the 175 identified bridges, 56.6% (99) were associated with media, 30.9% (54) had no affiliation, 9.7% (17) were associated with the film industry, 0.6% (1) were associated with an industry other than film or media, and 2.3% (4) were classified as unknown. The unknown users were categorized as missing. The remaining frequencies were significantly different, $X^2(3, N = 171) = 133.257, p < .05$.

Of the 99 bridges classified as media, 12.1% (12) were associated with newspapers, 17.2% (17) with magazines, 6.1% (6) with television, 2.0% (2) with radio, 23.2% (23) with blogs, 32.3% (32) with online-only news, 4.0% (4) with fan sites/communities, and 3.0% (3.0%) with other websites. These frequencies were significantly different, $X^2(7, N = 99) = 66.737, p < .05$. Users varied in the nature of their association with the identified media, with 57.6% (57) accounts representing media organizations or specific vehicles, 22.2% (22) representing the owner, founder, or sole contributor to the organization, 18.2% (18) representing a contributor, and the nature of 2.0% (2) users' affiliation was unknown. These frequencies were significantly different, $X^2(3, N = 99) = 65.081, p < .05$. Of these 99 media-affiliated accounts, 32.3% (32) were film-specific, meaning the words film or movie appeared in either the bridge's Twitter handle or user description.

Of the 19 bridges associated with the film industry or representing official film communication, 23.5% (4) were official Twitter accounts for films, 11.8% (2) were directors, 11.8% (2) were cast members, 11.8% (2) were writers, 29.4% (5) were movie theaters, and 5.9% (1) were affiliated with the industry in some other way. These frequencies were not significantly

different, $X^2(6, N = 17) = 5.647$, ns. For the 54 bridges with no affiliation, 22.2% (12) were entertainers, 3.7% (2) were other public figures, and 74.1% (40) were unknown. These frequencies were significantly different, $X^2(2, N = 54) = 43.111$, $p < .05$. Finally, of the 152 bridges with either a media or no affiliation coded for the category “critic?”, 5.9% (9) self-identified as film critics in their user descriptions. All nine of these bridges were affiliated with media, and the difference in frequencies was significant, $X^2(1, N = 152) = 5.121$, $p < .05$.

RQ3: What information sources serve as (a) talking bridges, and (b) listening bridges in the Twitter eWOM networks leading up to and immediately following theatrical releases?

To answer the third research question, bridges were further categorized by their in-degree and out-degree centralities. A total of 33.7% (59) of bridges displayed high betweenness, but neither high in-degree nor out-degree. The remaining 116 were categorized into talkers and listeners based on their respective in- and out-degrees, with some overlap occurring between the groups. Of these 116, the 81.0% (94) of bridges that displayed both high in-degree and high betweenness were categorized as talkers. Likewise, 8.6% (10) were categorized as listeners because they displayed both high betweenness and high out-degree. Finally, 10.3% (12) bridges had high betweenness, in-degree, and out-degree and were categorized as both talking and listening bridges in the networks.

Talking bridges. Among users categories as talking bridges, 14.4% were associated with the film industry, 68.3% were media sources, and 17.3% had no affiliation. For users categorized as non-talking bridges, 3.0% were associated with the film industry, 42.4% were associated with media, and 54.5% had no affiliation. These results are presented graphically in Figure 11. A Chi-square test for association was conducted between talking bridge (0=no, 1=yes) and affiliation. All expected cell frequencies were greater than five. There was a significant association between

affiliation and whether or not the user was classified as a talking bridge, $X^2(2, N = 170) = 27.498, p < .05$. This association was moderately strong, Cramer's $V = 0.402, p < .05$.

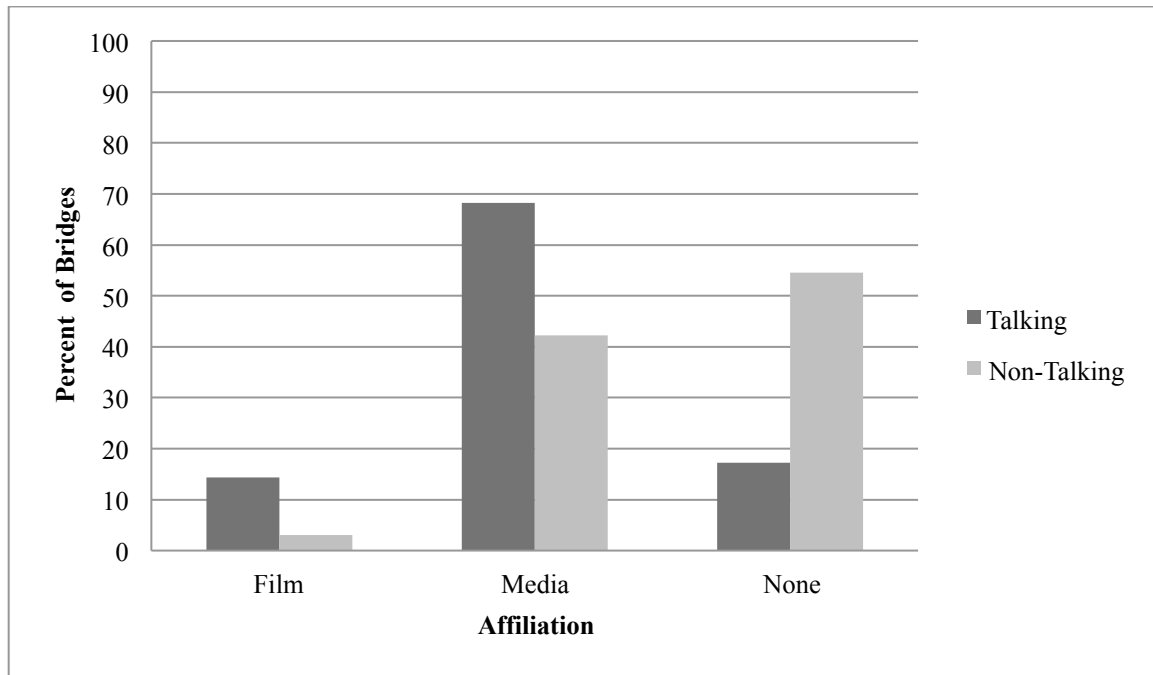


Figure 11. Affiliations of talking and non-talking bridges in Twitter movie eWOM networks

For those talking bridges associated with the media industry, 45.1% represented traditional media and affiliated users while 54.9% represented digital media and affiliated users. For non-talking bridges associated with the media industry, 17.9% were traditional media and affiliates and 82.1% were digital media and affiliates. Fisher's Exact Test showed a significant association ($p < .05$). However, the association was low, $\phi = -0.253, p < .05$.

Listening bridges. Among listening bridges, 13.6% were associated with the film industry, 50.0% were media sources, and 36.4% had no affiliation. Among non-listening bridges, 9.5% were associated with the film industry, 59.5% were media sources, and 31.1% had no affiliation. A Chi-square test for association was conducted between listening bridge (0=no,

1=yes) and affiliation. One cell (16.7%) had an expected count less than five. The association between affiliation and whether or not the user was classified as a listening bridge was not significant, $X^2(2, N = 170) = 0.797$, ns. These results are presented graphically in Figure 12.

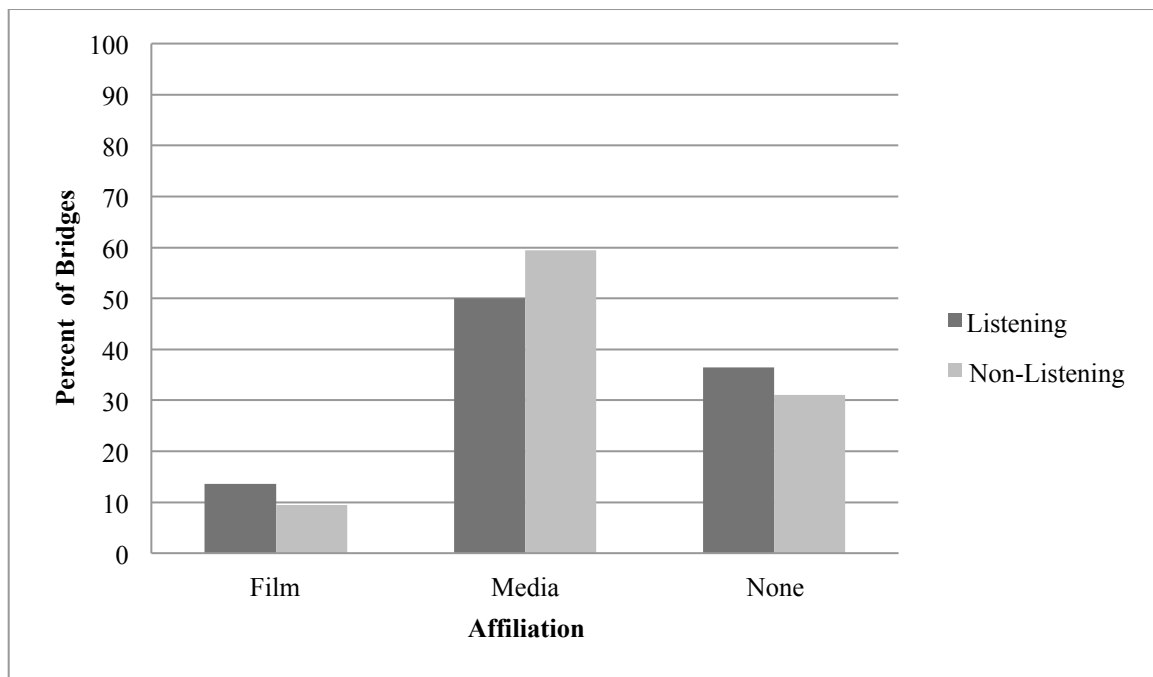


Figure 12. Affiliations of listening and non-listening bridges in Twitter movie eWOM networks

For those listening bridges associated with the media industry, 9.1% represented traditional media and affiliated users while 90.9% represented digital media and affiliated users. For non-listening bridges associated with the media industry, 40.9% were traditional media and affiliates and 59.1% were digital media and affiliates. One cell (25.0%) had an expected count less than five. Fisher's Exact Test showed a significant association ($p < .05$) between media type and listening bridge. This association was low, $\phi = 0.207$, $p < .05$.

Summary

A network analysis of the pre-release and post-release eWOM for nine films with wide theatrical release in November 2012 revealed that Twitter users affiliated with either traditional or nontraditional media filled a majority of the important roles in the network related to information flow. In terms of the important media sources for information dissemination (hubs), online-only media outlets appeared most frequently in the networks, followed by blogs. Comparing traditional media information gatekeepers, newspapers and magazines appeared more often as hubs in the networks than did radio and television sources.

The second most frequently occurring group of hubs consisted of users with no affiliation, which were split almost equally between public figures and non-public figures, with entertainers appearing far more often than other public figures (e.g., politicians, athletes). Taking into account that cast members of the films were categorized as part of the film industry, entertainers held a substantial presence in the eWOM networks. While it is possible that entertainers hold this proportion of hub positions because Twitter users in these eWOM networks view them as credible sources of information about entertainment goods, they may also occupy these positions simply by the virtue of having disproportionately large numbers of followers compared to other members of the network. Study two will seek to shed some light on these two possibilities by examining Twitter users' reported likelihoods to seek movie information from public figures (including celebrities) and their motives for doing so.

A similar pattern emerged with bridges in the networks. The majority of bridges were associated with either traditional or nontraditional media sources, and nontraditional media such as online-only news outlets and bloggers appeared more often in the networks than did traditional media. As with the identified hubs, newspapers and magazines appeared more often

as gatekeepers bridging structural holes than did television and radio sources. The affiliations of listening and non-listening bridges were not statistically significant from one another. However, there was a difference in the affiliation of bridges identified as talkers in the network compared to those who were not talkers.

Talking bridges were associated with media more than non-talking bridges. These bridges are characterized by high out-degree in the network, but not by high in-degree. This means that these users broadcast information to their many followers in the network but often do not reciprocate following relationships with those users. These media serve as the only link between many of their followers (e.g., @IMDB—the official Twitter account for the Internet Movie Database—in the first post-release network for *Skyfall*), and thus fill a structural hole in the network. Talkers were also more likely to be affiliated with traditional media than digital media while non-talkers were equally likely to have traditional and digital media affiliations. This suggests a lower level of interaction between traditional media and their followers than digital media.

Official sources of film information were present in the eWOM networks, though they appeared less frequently as hubs and bridges than did users with media affiliations and users with no affiliation. The most prominent of these were the users @eliroth (writer), @RZA (actor, producer, and director), @russellcrowe (actor), and @DaveBautista (actor) in the three networks for *The Man with the Iron Fists*. Official Twitter accounts for the films appeared as hubs or bridges only five times among the 35 networks (once each for *Red Dawn* and *The Man with the Iron Fists* and three times for *Life of Pi*). Whether these differences exist as a result of the time of data collection, genre differences, or differences in movie marketing strategies remains to be seen. This limitation is discussed further in Chapter 7.

Of the media and no affiliation sources, about a quarter were film-specific. This figure includes entertainment news and self-proclaimed film buffs. Professional critics represented less than 10% of the important actors in the network. Together these findings suggest that Twitter users in these movie eWOM networks do still choose to receive information from traditional gatekeepers of movie information (e.g., film critics, “movie buffs”, or newspaper “arts” or “film” sections); however, they receive a large portion of their movie information from more generic media sources, including online news sites and popular blogs, and public figures.

CHAPTER 6

STUDY TWO—SURVEY

To determine the information sources from which college students are most likely to seek and share information, an online survey was conducted. This study also examined differences in information seeking and sharing behaviors between frequent and nonfrequent moviegoers. Finally, it explored students' motives for seeking and sharing eWOM from movie information sources on Twitter.

Method

Sample. A total of 598 undergraduate students enrolled in journalism and mass communication courses at the University of Georgia were recruited to participate in a self-administered online survey. College students are more likely than the general population to be heavy Internet users and visit movie-related websites such as IMDd.com (Mediamark Research, Inc., 2011a), and moviegoers in the 18-24 age range are more likely to report higher movie attendance as well as a preference to see new movies on opening weekend (Mediamark Research, Inc. 2011b). Students were offered extra course credit as an incentive to complete the survey. To further increase response rates, all recruited students were also eligible to enter a drawing for two \$25 gift cards to the campus bookstore. A total of 275 students completed the survey, yielding a response rate of 45.98 percent.

Procedure. A pre-test was conducted with eight individuals not included in the sample to ensure there were no problems with question wording or survey functionality. Following this pre-test, the survey link and instructions were sent to the recruited students. First, screening

questions asked respondents to choose the websites they use from a list of popular social networking websites and to indicate the last time they used each website. Respondents who indicated using Twitter in the last six months continued to the full survey. Respondents who did not meet this requirement were directed to a shorter version that did not contain any Twitter-related questions. Finally, all respondents answered demographic items and were allowed to claim their extra course credit and enter the gift card drawings.²

Measurement instruments. Respondents who indicated using Twitter within the last six months were asked to estimate their information seeking and forwarding behaviors by indicating whether they subscribe to the identified sources on Twitter and indicating on a seven-point Likert scale the frequency with which they: (1) seek out and (2) share information from these sources. Respondents then completed modified versions of Goldsmith and Horowitz's (2006) Motivations for Seeking Opinions Online Scale and Rubin, Perse, and Barbato's (1988) Interpersonal Communication Motives Scale. Regardless of their Twitter use, all respondents completed Zaichkowsky's (1985) Product Involvement Scale and were asked to report their movie theater attendance as indications of their involvement with movies in general.

Information seeking. Goldsmith and Horowitz's (2006) Motivations for Seeking Opinions Online Scale measured respondents' motivations to seek out movie information identified in study one. The scale includes 28 items measuring eight factors: perceived risk ("because getting information electronically reduces the risk of making a bad choice"), influence of others ("because other people seem to be doing it successfully"), price considerations ("In order to get the best value for my money"), ease of use ("because the amount of effort I have to

² To comply with IRB requirements, all recruited students were offered the opportunity to participate in the gift card drawings regardless of whether they participated in the research. One respondent chose not to participate and was redirected to the gift card drawing portion of the survey.

make to find information is small”), accidentally (“Because I just come across it when using Twitter”), it’s cool (“In order to be more popular among my friends”), saw on TV (“when I see a TV ad that makes me want to go online and learn more”), and to get information (“because I can get a variety of information from people who have negative and positive opinions”) in response to the statement: “I look for information about movies on Twitter...” (see Appendix B). These items were measured on a five-point Likert scale (1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree).

Information sharing. Measures adapted from the Interpersonal Communication Motives Scale (Rubin, Perse, & Barbato, 1988) measured respondents’ motivations to pass along movie information on Twitter. This scale has been used in research on motivations to forward email messages (Phelps, 2003) and includes measures of pleasure (“because I enjoy it”), affection (“to help others”), inclusion (“because it makes me feel less lonely”), escape (“to get away from what I’m doing”), and control (“to tell others what to do”) in response to the statement “I pass along movie information from others on Twitter...” (see Appendix B). These measures were also measured on a five-point Likert scale, ranging from strongly disagree to strongly agree, with higher scores representing more motivation to share information from a source.

Because ticket prices do not usually vary from movie to movie³, two of the scale items concerning price were excluded (“Because it helps me find products that are priced the lowest” and “In order to find the lowest prices”). Other modifications to scale items were superficial, such as replacing the generic term “product(s)” with the more relevant “movie(s)” and referring specifically to Twitter use rather than “going online” or “getting information electronically.”

³ While ticket prices for films shown in 3D may be higher than their standard counterparts, controlling for this difference is beyond the scope of this research.

Movie involvement and moviegoing frequency. Respondents completed Zaichkowsky's (1985) Product Involvement Scale, which includes 20 items measured on a seven-point semantic differential scale (lowest involvement= -3; highest involvement= 3). In addition to this scale, respondents were asked to indicate the number of films they had seen in a movie theater in the past two months and in the past twelve months. Half of the items were reverse coded and are indicated by an asterisk on the survey instrument in Appendix B (the asterisks were not present on the online version of the survey). To measure moviegoing frequency, respondents were also asked to report how many times they visited a theater to see a movie in the past two months as well as in the past 12 months.

Results

Screening question. Of the 299 completed surveys, 83.6% (250) of participants indicated having a Twitter account, and 84.6% (253) reported using the social networking service within the last six months. Further analyses focus on these 253 participants.

Sample characteristics. The average age of the respondents was 20.59 years, with 17.7% (44) reporting being freshmen, 51.0% (127) sophomores, 20.5% (51) juniors, and 10.8% (27) seniors. A vast majority (84.3%) were female.

Movie involvement and moviegoing frequency. A movie involvement score was calculated for each respondent by calculating the mean of that respondent's scores on Zaichowsky's Product Involvement Scale. Respondents' mean movie involvement score was 1.60 (SD=0.893). Moviegoing frequency was determined using the MPAA's definition of frequent moviegoers as individuals who see 12 or more films in theaters in a 12-month period. Following this definition, 23.8% (57) of respondents were considered frequent moviegoers (coded as 1); the remaining 76.2% (182) were considered non-frequent moviegoers (coded as 0).

The results of a one-way ANOVA⁴ [$F(1,236)=25.785, p < .05$] showed that frequent moviegoers had significantly higher movie involvement scores ($M=2.09, SD=.0686$) than non-frequent moviegoers ($M=1.44, SD=0.895$).

Twitter Use. Of the 249 participants that answered the question, “Which of the following types of users do you follow on Twitter?” 60.0% (151) reported following either newspapers or magazines, 53.4% (133) followed TV or radio accounts, 19.7% (49) followed online only media accounts, 39.4% (99) followed bloggers, 94.0% (234) followed public figures, 6.0% (15) followed professional movie critics, and 6.4% (16) followed movie theaters. In terms of official movie information sources, 8.4% (21) followed movie studios, and 18.9% (47) reported following official Twitter accounts for films.

Information seeking likelihood. Respondents were asked to report, on a 7-point Likert scale (1=very unlikely; 7=very likely), how likely they are to seek information on Twitter about upcoming or newly released films from a list of sources. Respondents were most likely to report seeking information from Friends/Family ($M=5.63, SD=1.867$), followed by public figures ($M=5.07, SD=1.862$), TV/Radio ($M=4.12, SD=2.007$), Newspapers/Magazines (3.81, $SD=2.040$), Official Film Twitter Accounts ($M=3.65, SD=2.091$), Movie Theaters ($M=3.62, SD=2.064$), Bloggers ($M=3.61, SD=1.967$), Online-only Media Outlets ($M=3.49, SD=1.948$), Movie Studios ($M=3.39, SD=1.951$), and Professional Film Critics ($M=3.03, SD=1.948$).

Following this initial analysis, a new variable was computed by summing the information-seeking likelihood scores for each source. Users with a score less than 10 were classified as respondents who do not seek information about movies on Twitter and were excluded from

⁴ The distribution of movie involvement scores was not normal, as assessed by a Shapiro-Wilk test ($p < .05$); a Kruskal-Wallis H test also showed a significant difference between frequent and non-frequent moviegoers.

further analysis of information-seeking motives and behaviors. The means for each source before and after data filtering are presented in Table 13.

Table 13. Information source means before and after filtering for overall information seeking

Source	Original Mean*	Original SD	Filtered Mean	Filtered SD
Friends/Family	5.63	1.867	5.89	1.543
Public Figures	5.07	1.862	5.30	1.630
TV/Radio	4.12	2.007	4.30	1.915
Newspapers/Magazines	3.81	2.040	3.96	1.985
Official Film Accounts	3.65	2.091	3.79	2.052
Movie Theaters	3.62	2.064	3.76	2.062
Bloggers	3.61	1.967	3.74	1.922
Online-only Media	3.49	1.948	3.62	1.911
Movie Studios	3.39	1.951	3.52	1.920
Professional Critics	3.03	1.948	3.13	1.941
*Measured on a 7 point Likert scale {1=very unlikely, 2=unlikely, 3=somewhat unlikely, 4=neither likely nor unlikely, 5=somewhat likely, 6=likely, 7=very likely}				

There was no significant interaction between moviegoer frequency and source on information-seeking likelihood, $F(6.621, 1430.150) = .993$, ns. Therefore, in response to RQ3, there was no difference between the reported likelihood to seek information from the identified sources between frequent and non-frequent moviegoers. However, the main effect of moviegoing frequency showed a significant difference between frequent and non-frequent moviegoers in their likelihood to seek movie information on Twitter, $F(1, 216) = 6.987$, $p < .05$, partial $\eta^2 = .031$. Averaging across information source, frequent moviegoers reported a higher likelihood to seek information about movies on Twitter ($M=4.50$, $SD=1.112$) than non-frequent moviegoers ($M=3.99$, $SD=1.268$).

The main effect of source also showed a significant difference in likelihood to seek information from the different sources, $F(6.621, 1430.150) = 48.896$, $p < .05$, partial $\eta^2 = .185$.

Post-hoc analysis with a Bonferroni adjustment revealed that respondents were significantly more likely to report seeking information from friends and family members than any other source ($M=5.89$, $SD=1.543$). Aside from friends and family, respondents reported a higher likelihood to seek information from public figures ($M=5.30$, $SD=1.630$) than other sources. Respondents reported a higher likelihood to seek information from films' official Twitter accounts ($M=3.79$, $SD=2.052$) than from movie studios ($M=3.52$, $SD=1.920$) and film critics ($M=3.13$, $SD=1.941$), but there were no significant differences in reported information seeking between official film Twitter accounts, newspapers/magazines ($M=3.96$, $SD=1.985$), movie theaters ($M=3.76$, $SD=2.026$), bloggers ($M=3.74$, $SD=1.922$), or online-only media outlets ($M=3.62$, $SD=1.911$). These results are presented graphically in Figure 13.

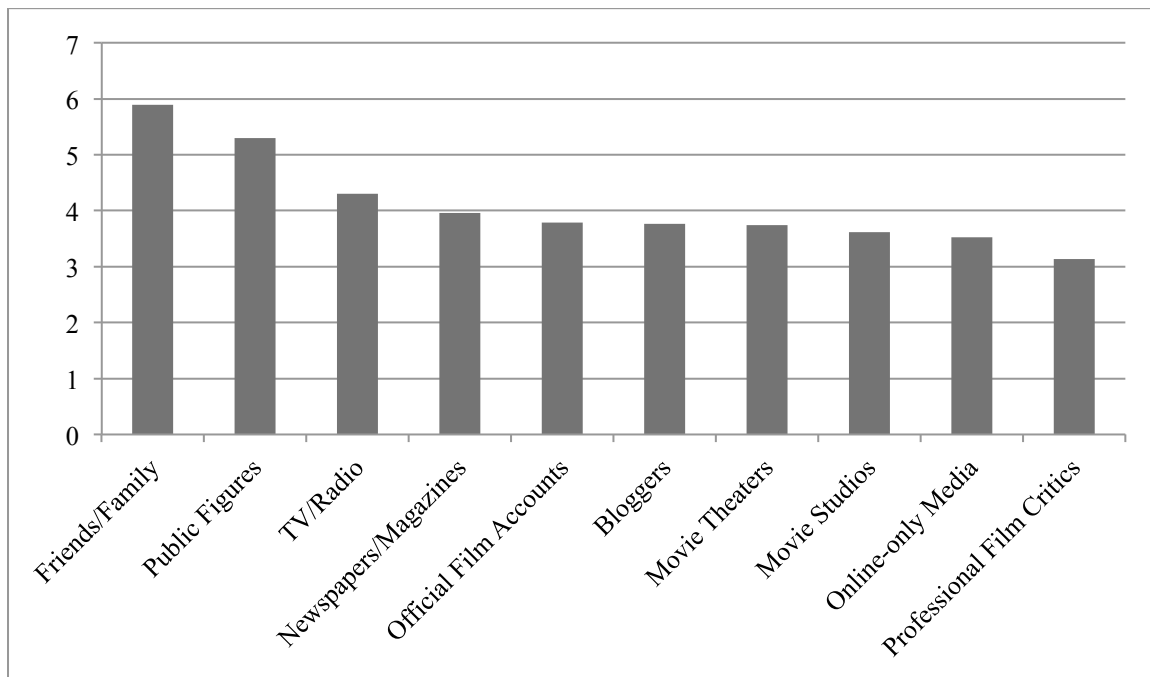


Figure 13. Mean likelihood to seek movie information from Twitter sources

Information sharing likelihood. Respondents were asked to report on a 7-point Likert scale (1=very unlikely; 7=very likely) how likely they are to share information (on Twitter) about upcoming or newly released films from a list of sources with others. Respondents were most likely to report sharing information from Friends/Family (M=5.23, SD=1.93), followed by Public Figures (M=4.31, SD=2.14), TV/Radio (M=3.34, SD=2.04), Newspapers/Magazines (M=3.19, SD=2.01), Official Film Twitter Accounts (M=3.16, SD=1.99), Bloggers (M=3.15, SD=1.93), Movie Theaters (M=3.11, SD=1.94), Movie Studios (M=2.98, SD=1.90), Online-only Media Outlets (M=2.93, SD=1.78), Professional Film Critics (M=2.70, SD=1.82). Similarly to the information seeking data, respondents who reported that they were “very unlikely” to share information from all sources were filtered out of further analysis. Table 14 presents the mean likelihoods to share information for the ten information sources.

Table 14. Information source means before and after filtering for overall information sharing

Source	Original Mean*	Original SD	Filtered Mean	Filtered SD
Friends/Family	5.23	1.936	5.64	1.491
Public Figures	4.29	2.146	4.61	1.973
TV/Radio	3.33	2.055	3.57	2.010
Newspapers/Magazines	3.17	2.013	3.39	1.984
Official Film Accounts	3.16	1.997	3.37	1.969
Bloggers	3.15	1.940	3.36	1.906
Movie Theaters	3.10	1.951	3.30	1.931
Movie Studios	2.94	1.893	3.14	1.882
Online-only Media	2.91	1.765	3.10	1.739
Professional Critics	2.67	1.812	2.83	1.818
*Measured on a 7 point Likert scale {1=very unlikely, 2=unlikely, 3=somewhat unlikely, 4=neither likely nor unlikely, 5=somewhat likely, 6=likely, 7=very likely}				

RQ5. Do frequent moviegoers differ from nonfrequent moviegoers in the sources from which they are most likely to share information on Twitter? A mixed ANOVA was conducted

to determine whether there were significant differences between frequent and non-frequent moviegoers' mean likelihoods to share information from the ten sources. Two outliers were identified for the information source "Friends/Family," each with a studentized residual of -3.08. These data points are included in the analysis. The assumption of normality was violated, as assessed by a Shapiro-Wilk test ($p < .05$). The assumption of homogeneity of variances as assessed by Levene's test was met ($p > .05$) for all within subjects variables except the information source "Public Figures." Box's test of equality of covariance matrices did not show homogeneity of covariances ($p < .05$). Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(44) = 389.397$, $p < .05$; therefore, a Greenhouse-Geisser correction was applied ($\epsilon = 0.646$).

The interaction between information source and moviegoer frequency on likelihood to share movie information on Twitter was not significant, $F(5.818, 1169.497) = 0.813$, ns. There was also no significant main effect for moviegoing frequency, $F(1, 201) = 3.495$, ns. Averaging across information source, frequent ($M=3.51$, $SD=1.506$) and non-frequent ($M=3.96$, $SD=1.376$) moviegoers were just as likely to share movie information on Twitter.

The main effect of source showed a significant difference in likelihood to share information from the different sources on Twitter, $F(5.818, 1169.497) = 70.632$, $p < .05$, partial $\eta^2 = .260$. *Post-hoc* analysis with a Bonferroni adjustment revealed that respondents were significantly more likely to report sharing information from friends and family members than any other source ($M=5.64$, $SD=1.491$). Aside from friends and family, respondents reported a higher likelihood to seek information from public figures ($M=4.61$, $SD=1.491$) than other sources. There were no significant differences in the mean likelihoods to share information from TV/radio sources ($M=3.57$, $SD=2.010$), bloggers ($M=3.36$, $SD=1.906$), official film Twitter

accounts ($M=3.37$, $SD=1.969$), movie theaters ($M=3.30$, $SD=1.931$), and newspapers/magazines ($M=3.39$, $SD=1.984$). However, the means for TV/radio, bloggers, and official film accounts were significantly higher than for movie studios ($M=3.14$, $SD=1.882$), online-only media outlets ($M=3.10$, $SD=1.739$), and professional film critics ($M=2.83$, $SD=1.818$). There were no significant differences in the means for movie theaters, newspapers/magazines, and movie studios or among the means for newspapers/magazines, movie studios, and online-only media outlets. Finally, the mean for professional film critics was significantly lower than the means for all other information sources. These results are presented graphically in Figure 14.

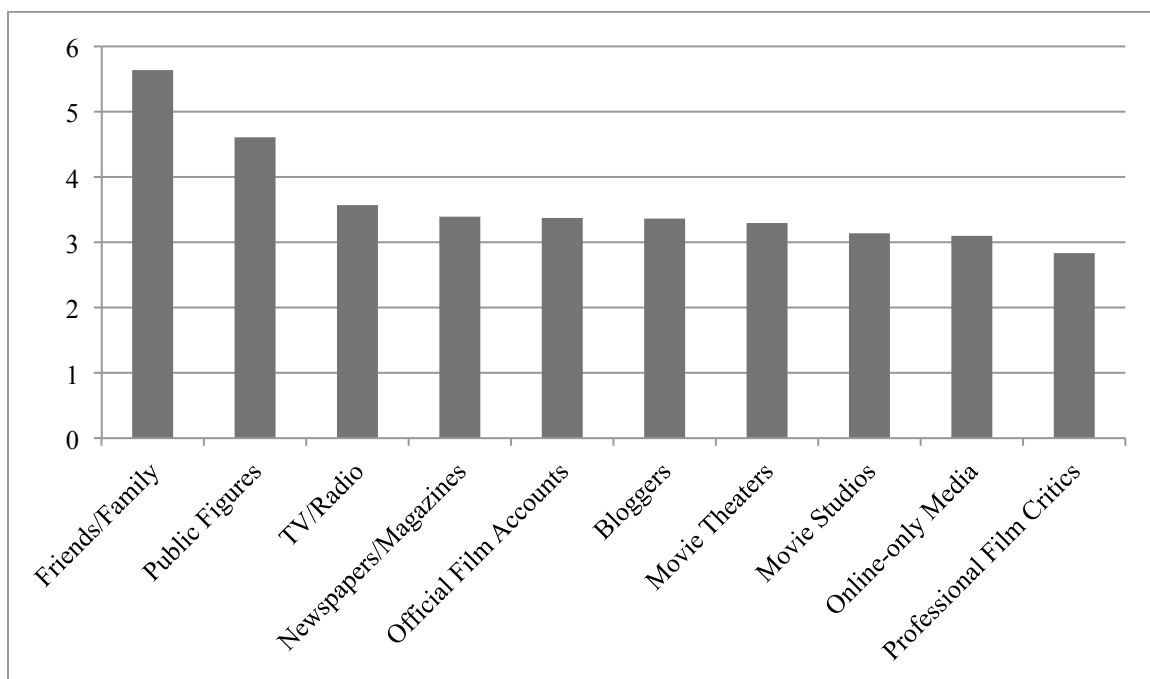


Figure 14. Mean likelihood to share movie information from Twitter sources

Information seeking motives. Respondents were asked to report on a 5-point Likert scale (1=strongly disagree; 5=strongly agree) their motives for seeking out movie information on Twitter. Items for the scale were adapted from Goldsmith and Horowitz's Motivations to Seek

Information Online scale. The means and standard deviations of each of the 28 scale items are reported in Table 15 below. Items were grouped according to the scale's eight factors, and a reliability analysis was run in SPSS for each factor. Cronbach's alpha was greater than 0.7 for each of the factors with the exception of "Saw on TV," which had been reduced from three items to two for this research because the item "when I see digital pictures of things in e-mails or on web pages" lacked face validity for measuring movie information-seeking on Twitter. However, combining the factors "Saw on TV" and "To Get Information," which both contain statements about finding information or learning more about the film, yielded a reliability score of 0.821 ($M=3.35$, $SD=0.86$), so these factors are combined in further data analysis.

Table 15. Information seeking motive factor items and reliabilities

Factor	Item	Mean*	SD
Risk Reduction $M=3.10$, $SD=0.868$ Cronbach's $\alpha = .883$	so the chances of me making a bad decision are reduced.	2.86	1.147
	because I don't want to end up regretting a decision I make.	2.85	1.154
	to help me avoid making a risky decision.	2.77	1.131
	so that I can hear from people who have already seen the movie.	3.76	1.037
	because getting information electronically reduces the risk of making a bad choice.	2.65	1.102
	in order to make sure a movie is worth seeing.	3.54	1.069
Influence of Others $M=3.04$, $SD=0.915$ Cronbach's $\alpha = .840$	because I have seen others successfully seek out information on Twitter.	2.96	1.082
	because my peers seek out information on Twitter.	3.07	1.108
	because other people seem to be doing it successfully.	2.95	1.068
Price Considerations $M=2.91$, $SD=1.039$ Cronbach's $\alpha = .880$	in order to get the best value for my money.	2.94	1.179
	because it helps me find movies that are the highest quality.	2.92	1.167
	in order to get the highest quality product available.	2.79	1.126

Factor	Item	Mean*	SD
Ease of Use M=3.22, SD=0.872 Cronbach's $\alpha = .828$	because the amount of effort I have to make to find information is small.	3.32	1.152
	because it is not a hassle for me to find the information I need.	3.41	1.070
	because I am able to research the movie conveniently from home, work, or school.	3.32	1.171
	because Twitter is the easiest way to get information.	2.92	1.155
	because I am able to compare different movies easily.	2.92	1.172
Accidentally M=3.67, SD=0.775 Cronbach's $\alpha = .761$	when I am using Twitter and just happen to come across a subject.	3.97	0.878
	because I just come across it when I'm online.	3.72	1.015
	when I'm online and information just comes to me.	3.71	0.986
	because I spend a lot of time talking to others online and information just comes to me	3.16	1.153
It's Cool M=2.49, SD=0.964 Cronbach's $\alpha = .712$	in order to be more popular among my friends.	2.20	1.090
	because it's cool to seek information on Twitter.	2.69	1.116
Saw on TV M=3.26, SD=0.986) Cronbach's $\alpha = .637$	when I see a TV ad that makes me want to go online and learn more.	3.18	1.191
	because it is fun to use Twitter to find information.	3.34	1.112
To Get Information M=3.45, SD=0.892 Cronbach's $\alpha = .737$	because I can get a variety of information from people who have positive and negative opinions.	3.54	1.104
	when I hear about a new movie and want to find out more about it.	3.35	1.172
	because I can get information from someone who is not trying to sell me something.	3.38	1.082
*Measured on a 5 point Likert scale {1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree}			

RQ6. What motivates Twitter users to seek out movie information from (a) traditional media; (b) professional film critics; (c) bloggers; (d) online-only media; (e) official sources of movie information; (f) public figures; (g) friends and family? To determine whether individuals

who report higher likelihoods to seek information from certain sources have different motives for their information search, a repeated-measures ANOVA was conducted using the respondents reporting information seeking from each source. To determine who the information seekers were for each source, the ordinal scale used to classify information seeking likelihood for each source was collapsed into two categories: respondents who reported that they were somewhat likely, likely, or very likely to seek information from a source were classified as information seekers for that source. Respondents who indicated that they were neither likely nor unlikely, somewhat unlikely, unlikely, or very unlikely were categorized as non-seekers. The percentages and numbers of information seekers for each source are presented in Table 16.

Table 16. Percentages and numbers of information seekers across sources

Information Source	N (Total)	% Seekers	N (Seekers)
Friends/Family	226	86.3	195
Public Figures	226	76.5	173
TV/Radio	226	58.8	133
Newspapers/Magazines	226	51.8	117
Official Film Accounts	225	45.3	102
Bloggers	226	42.9	97
Movie Theaters	226	42.5	96
Online-only Media	226	40.7	92
Movie Studios	220	38.6	85
Critics	225	30.2	68

For each repeated-measures ANOVA, non-seekers for the information source were filtered out using the select cases function in SPSS. Each of the seven factors of motives for seeking information online was set up as a within-subjects variable. The assumption of sphericity was violated for all tests; therefore Greenhouse-Geisser corrections were applied. Within each information source, the omnibus ANOVA revealed significant differences in information seeking

motives. These differences were explored using post-hoc dependent samples t-tests with a Bonferroni adjustment. Results for information seeking motives for each information source are reported below.

Newspapers/magazines. For newspaper and magazine movie information seekers, Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(20) = 158.285, p < .05$; therefore, a Greenhouse-Geisser correction was applied ($\epsilon = 0.691$). A repeated measures ANOVA revealed a significant difference in motives for seeking information, $F(4.147, 481.018) = 58.139, p < .05$, partial $\eta^2 = .334$. *Post-hoc* analysis with a Bonferroni adjustment showed that, for respondents that reported seeking information from newspapers/magazines, the mean for the motive "accidentally" ($M=3.79$) was significantly higher than for all other motives. The difference between "ease of use" ($M=3.44$) and "to get information" ($M=3.55$) was not significant; however, these two motives had significantly higher means than "risk reduction" ($M=3.21$), "influence of others" ($M=3.15$), and "price considerations" ($M=3.10$), which were not significantly different from one another. Finally, the mean for "it's cool" ($M=2.58$) was significantly lower than all other motives. Figure 15 presents these results graphically.

TV/radio. Next, motives of TV and radio information seekers were examined. Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(20) = 155.875, p < .05$; therefore, a Greenhouse-Geisser correction was applied ($\epsilon = 0.716$). A repeated measures ANOVA showed a significant difference in motives for seeking information, $F(4.297, 567.270) = 61.740, p < .05$, partial $\eta^2 = .319$. *Post-hoc* analysis was conducted with a Bonferroni adjustment.

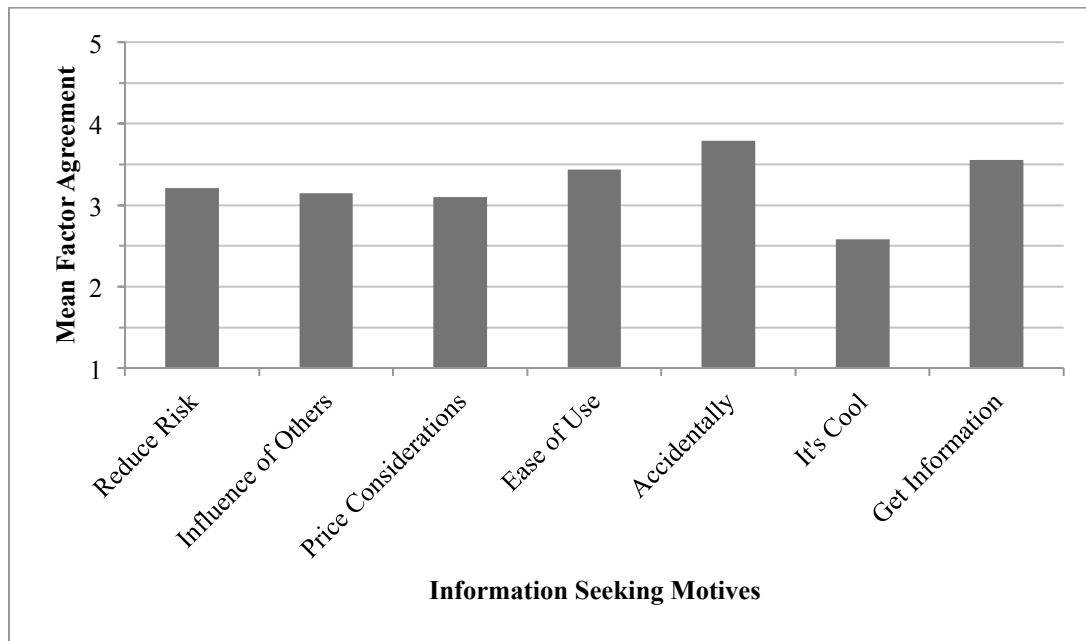


Figure 15. Means for information seeking motives among newspaper/magazine information seekers on Twitter

As shown in Figure 16, for respondents who reported seeking information from TV/radio, there were significant differences in the means for the motives “accidentally” ($M=3.77$), “to get information” ($M=3.60$), and “ease of use” ($M=3.41$) and all other motives. There was not a significant difference in the means of “risk reduction” ($M=3.23$) and “influence of others” ($M=3.24$), or between “influence of others” and “price considerations” ($M=3.07$). However, the mean for “risk reduction” was significantly higher than the mean for “price considerations.” Finally, the mean for the motive “it’s cool” ($M=2.67$) was significantly lower than all other means.

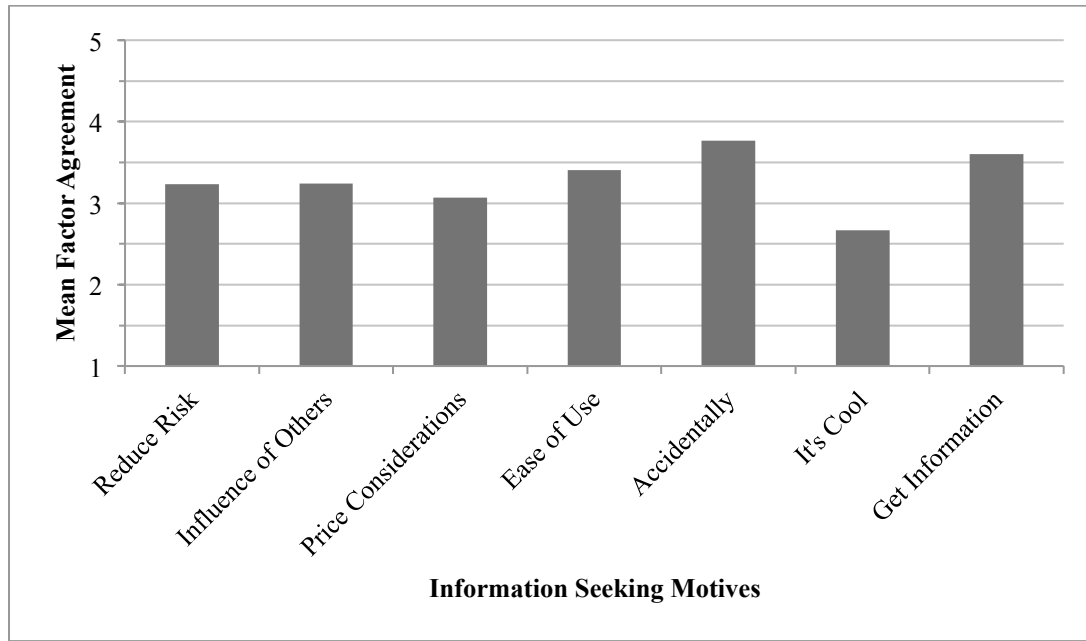


Figure 16. Means for information seeking motives among TV/radio information seekers on Twitter

Movie studios. For movie studio information seekers, Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(20) = 117.096, p < .05$. Therefore, a Greenhouse-Geisser correction was applied ($\epsilon = 0.682$). A repeated measures ANOVA revealed a significant difference in motives for seeking information, $F(4.089, 343.505) = 36.039, p < .05$, partial $\eta^2 = .300$. *Post-hoc* analysis with a Bonferroni adjustment indicated that, for respondents who reported seeking information from movie studios, there was not a significant difference between the motives "accidentally" ($M=3.81$) and "to get information" ($M=3.66$); however, these means were significantly higher than those for all other motives. Differences in the means for the motives "ease of use" ($M=3.46$), "risk reduction" ($M=3.38$), "influence of others" ($M=3.34$), and "price considerations" ($M=3.25$) were also not significant.

However, the mean for the motive “it’s cool” (M=2.73) was significantly lower than the means for all other motives. Figure 17 presents these results.

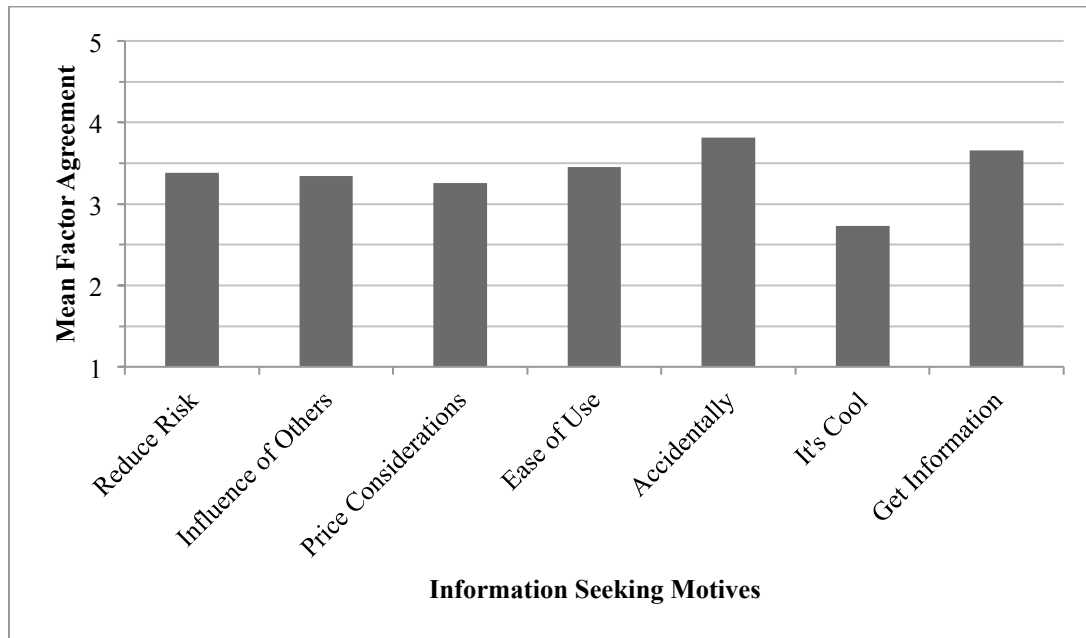


Figure 17. Means for information seeking motives among movie studio information seekers on Twitter

Official film Twitter accounts. Next, motives of information seekers for official film Twitter accounts were compared. Mauchly’s Test of Sphericity showed that the assumption of sphericity had been violated, $\chi^2(20) = 114.307$, $p < .05$; therefore, a Greenhouse-Geisser correction was applied ($\epsilon = 0.718$). A repeated measures ANOVA indicated a significant difference in motives for seeking information, $F(4.308, 435.073) = 49.729$, $p < .05$, partial $\eta^2 = .330$. *Post-hoc* analysis with a Bonferroni adjustment revealed that, for respondents who reported seeking information from official film Twitter accounts, there was no significant difference in the means for the motives “accidentally” (M=3.91) and “to get information” (M=3.71); the

means for these motives were significantly higher than those for all other motives to seek information from official film Twitter accounts. Differences between the motives “ease of use” (M=3.55) and “risk reduction” (M=3.42) were not significant, nor were those among “risk reduction,” “influence of others” (M=3.34), and “price considerations” (M=3.27). However, the mean for “ease of use,” was significantly higher than those for “influence of others,” and “price considerations.” Finally, the mean of “it’s cool” (M=2.73) was significantly lower than for all other motives. These results are presented graphically in Figure 18.

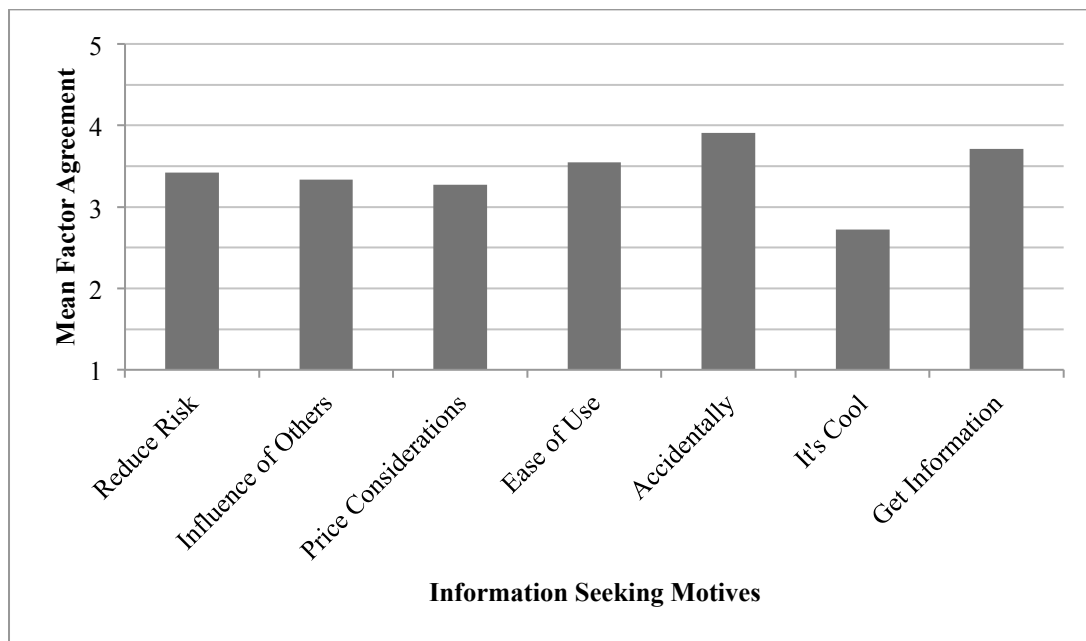


Figure 18. Means for information seeking motives among official movie account information seekers on Twitter

Professional critics. For professional critic information seekers, Mauchly’s Test of Sphericity showed the assumption of sphericity had been violated, $\chi^2(20) = 113.621$, $p < .05$. A Greenhouse-Geisser correction was applied ($\epsilon = 0.617$). A repeated measures ANOVA revealed

a significant difference in information seeking motives, $F(3.701, 247.980) = 23.378, p < .0005$, partial $\eta^2 = .259$. *Post-hoc* analysis was conducted with a Bonferroni adjustment. As shown in Figure 19, there was no significant difference between the means for the motives “accidentally” (M=3.80) and “to get information” (M=3.67) and also no significant difference between the means for “to get information” and “ease of use” (M=3.52). However, the mean for “accidentally” was higher than for “ease of use.” The mean for “to get information” was not significantly higher than “ease of use,” but was for all remaining motives. There were no significant differences among the means for “ease of use,” “risk reduction” (M=3.42), and “price considerations” (M=3.38). There was also no significant difference among the means for “risk reduction,” “price considerations,” or “influence of others” (M=3.26). Finally, the mean for the motive “it’s cool” (M=2.79) was significantly lower than the means for all other motives.

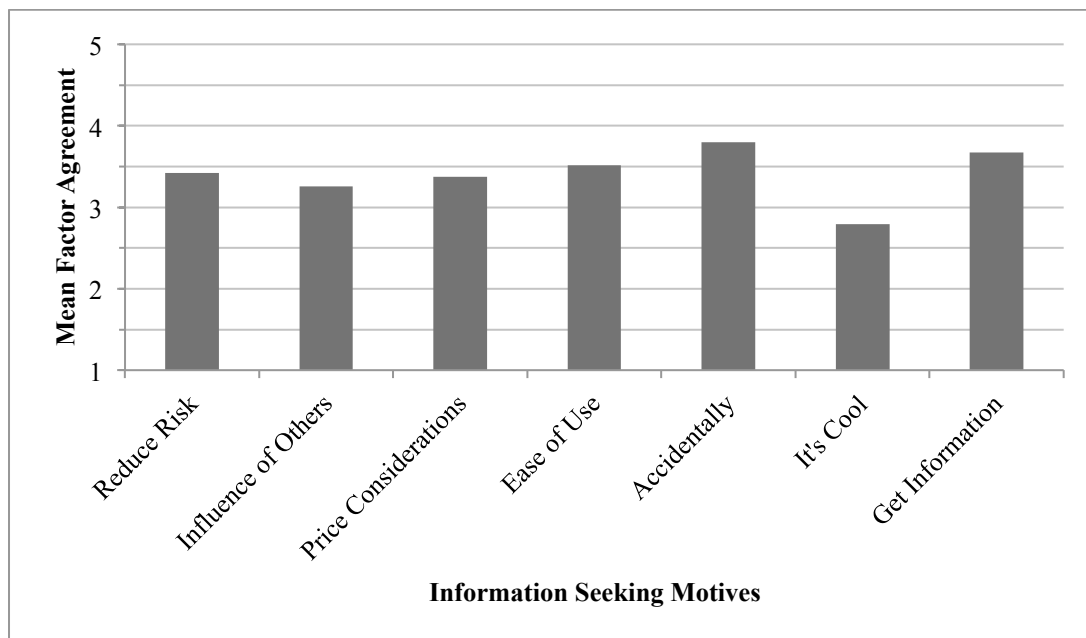


Figure 19. Means for information seeking motives among professional film critic information seekers on Twitter

Bloggers. For blog information seekers, Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(20) = 119.490, p < .05$. A Greenhouse-Geisser correction was applied ($\varepsilon = 0.707$). A repeated measures ANOVA revealed a significant difference in motives for seeking information, $F(4.241, 407.099) = 41.270, p < .0005$, partial $\eta^2 = .301$. *Post-hoc* analysis was conducted with a Bonferroni adjustment. As shown in Figure 20, there was not a significant difference between the means for the motives "accidentally" (M=3.87) and "to get information" (M=3.70). These means were both significantly higher than all other means. There was also no significant difference between the means for "ease of use" (M=3.51) and "risk reduction" (M=3.36), but the mean for "ease of use" was significantly higher than for all remaining motives. There was no significant difference among the means for "risk reduction," "influence of others" (M=3.30), and "price considerations" (M=3.20). Finally, the mean for "it's cool" (M=2.76) was significantly lower than the means for all other motives.

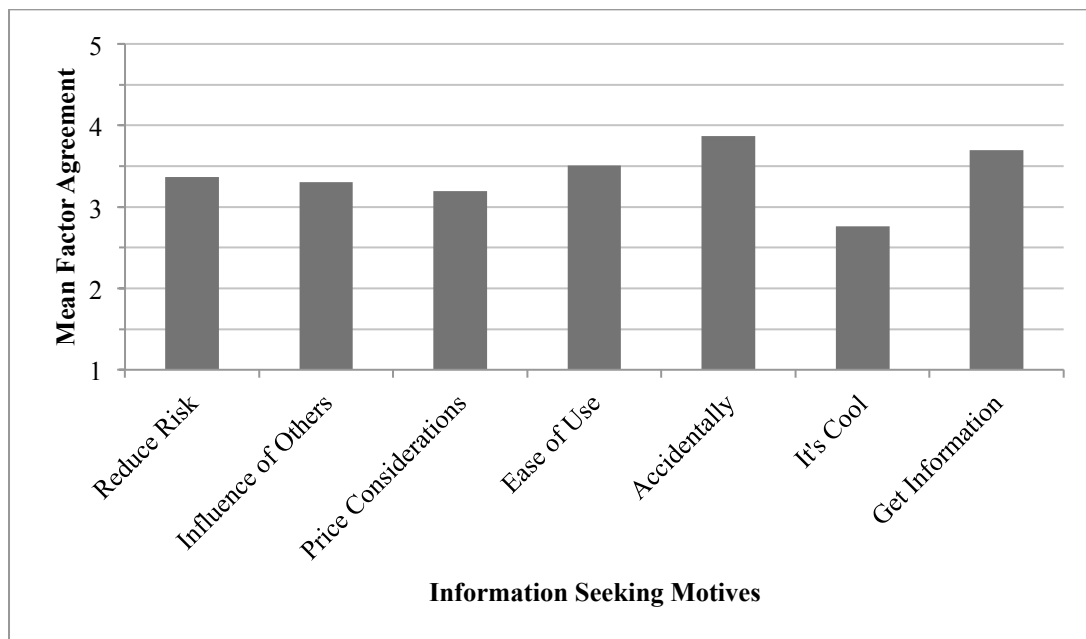


Figure 20. Means for information seeking motives among blog information seekers on Twitter

Online-only media outlets. Next, motives for online-only media outlet movie information seekers were compared. Mauchly's Test of Sphericity showed that the assumption of sphericity had been violated, $\chi^2(20) = 140.735$, $p < .05$, and a Greenhouse-Geisser correction was applied ($\epsilon = 0.646$). A repeated measures ANOVA indicated a significant difference in motives for seeking information, $F(3.878, 352.941) = 33.942$, $p < .05$, partial $\eta^2 = .272$. *Post-hoc* analysis with a Bonferroni adjustment revealed that, for respondents who reported seeking information from online-only media outlets, there was not a significant difference among the means for the motives "accidentally" ($M=3.84$), "to get information" ($M=3.68$), "ease of use" ($M=3.53$). However, the means for "accidentally" and "to get information" were significantly higher than for all other motives. There was no significant difference in the means for "ease of use," "risk reduction" ($M=3.44$), and "price considerations" ($M=3.34$). The mean for "ease of use" was higher than for "influence of others" ($M=3.35$); however there was not a significant difference among the means for "risk reduction," "price considerations," and "influence of others. Finally, the mean for the motive "it's cool" ($M=2.78$) was significantly lower than the means for all other motives. These results are presented in Figure 21.

Movie theaters. For movie theater information seekers, Mauchly's Test of Sphericity indicated a violation of the assumption of sphericity, $\chi^2(20) = 196.262$, $p < .05$. A Greenhouse-Geisser correction was applied ($\epsilon = 0.723$). A repeated measures ANOVA revealed a significant difference in motives for seeking information, $F(4.269, 405.540) = 45.656$, $p < .05$, partial $\eta^2 = .325$. *Post-hoc* analysis was conducted with a Bonferroni adjustment. As shown in Figure 22, for respondents that reported seeking information from movie theaters, the mean for the motive "accidentally" ($M=3.79$) was significantly higher than for all other motives. Following "accidentally," the mean for "to get information" ($M=3.57$) was significantly higher than all

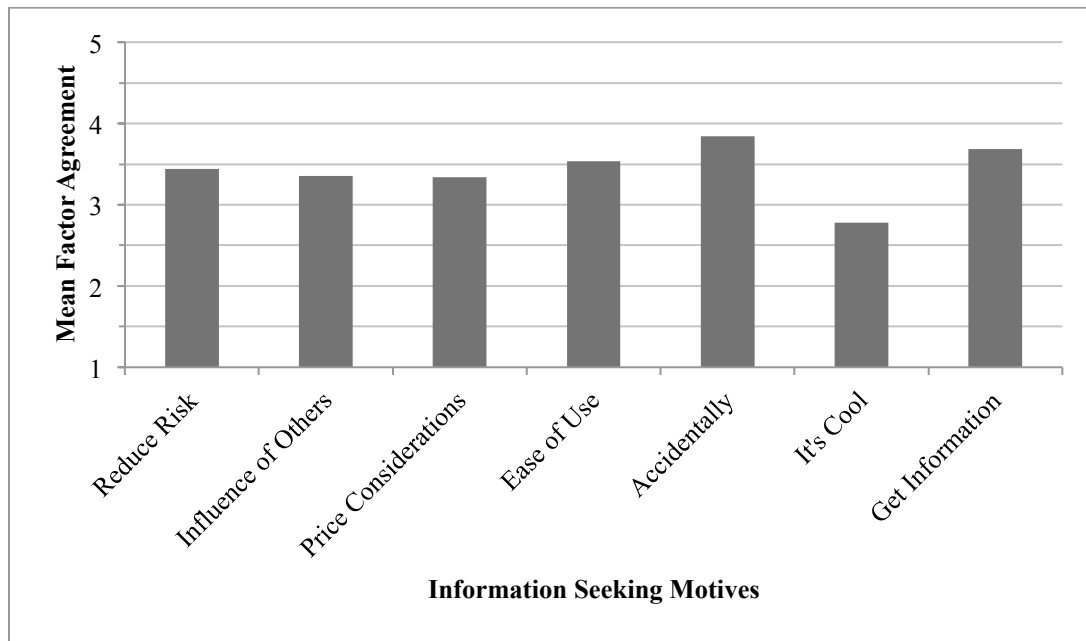


Figure 21. Means for information seeking motives among online-only media outlet information seekers on Twitter

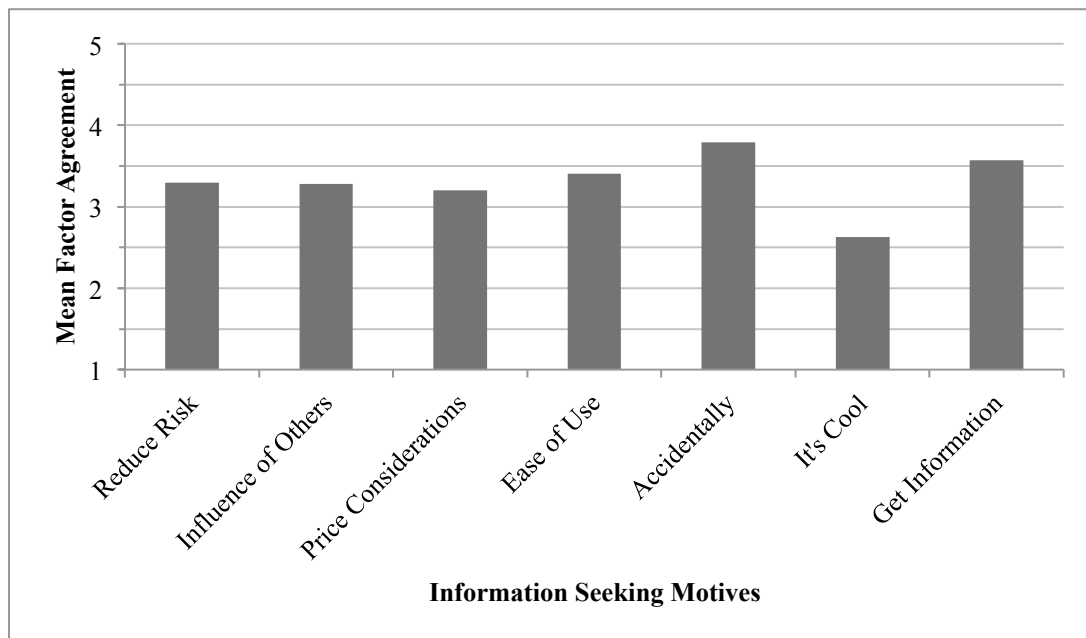


Figure 22. Means for information seeking motives among movie theater information seekers on Twitter

remaining motives. There was no significant difference among the means for the motives “ease of use” (M=3.41), “risk reduction” (M=3.30), “influence of others” (M=3.28), and “price considerations” (M=3.20). Finally, the mean for the motive “it’s cool” (M=2.63) was significantly lower than the means for all other motives.

Public figures. For public figure movie information seekers, Mauchly’s Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(20) = 196.262$, $p < .05$; therefore, a Greenhouse-Geisser correction was applied ($\epsilon = 0.723$). A repeated measures ANOVA indicated a significant difference in motives for seeking information, $F(4.341, 746.618) = 83.564$, $p < .05$, partial $\eta^2 = .327$. *Post-hoc* analysis with a Bonferroni adjustment revealed that, for respondents that reported seeking information from public figures, the mean for the motive “accidentally” (M=3.70) was significantly higher than for all other motives. Following “accidentally,” the mean for “to get information” (M=3.44) was significantly higher than all remaining motives. Following both “accidentally” and “to get information,” the mean for “ease of use” (M=3.27) was significantly higher than for all remaining motives. There was no significant difference in the means for the motives “risk reduction” (M=3.13) and “influence of others” (M=3.09) and also no significant difference between “influence of others” and “price considerations” (M=2.94); however, the mean for “risk reduction” was significantly higher than for “price considerations.” Finally, the mean for the motive “it’s cool” (M=2.52) was significantly lower than the means for all other motives. These results are presented graphically in Figure 23.

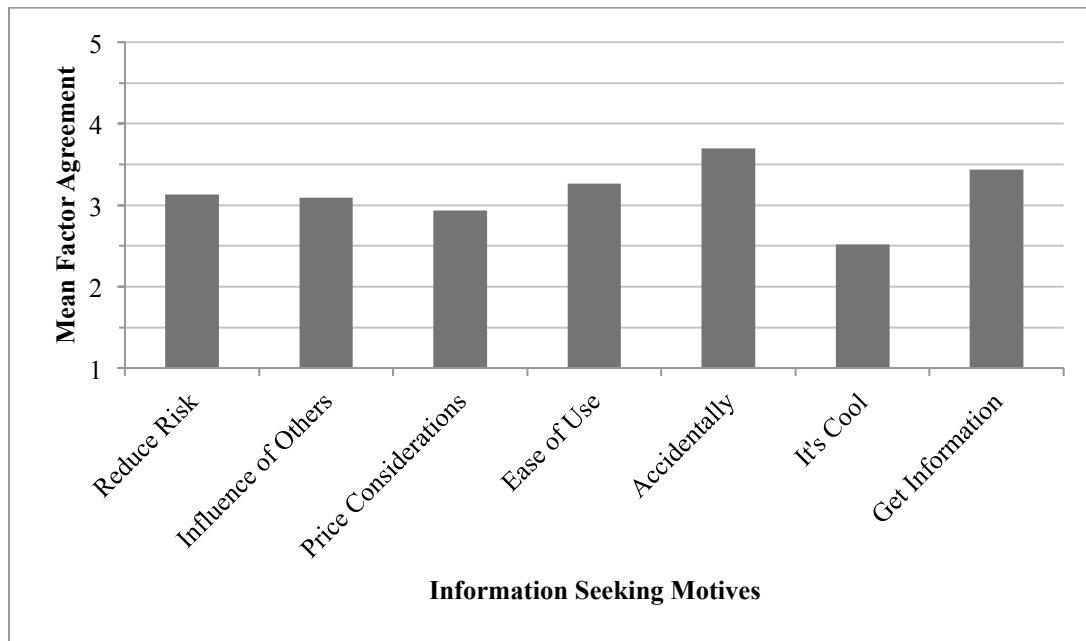


Figure 23. Means for information seeking motives among public figure information seekers on Twitter

Friends/family. Finally, the motives for friend and family movie information seekers were compared. Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(20) = 228.978$, $p < .05$, and a Greenhouse-Geisser correction was applied ($\epsilon = 0.722$). A repeated measures ANOVA showed a significant difference in motives for seeking information, $F(4.334, 840.801) = 94.863$, $p < .05$, partial $\eta^2 = .328$. *Post-hoc* analysis with a Bonferroni adjustment indicated that, for respondents that reported seeking information from public figures, the mean for the motive "accidentally" ($M=3.68$) was significantly higher than for all other motives. Following "accidentally," the mean for "to get information" ($M=3.40$) was significantly higher than all remaining motives. There was no significant difference in the means for the motives "ease of use" ($M=3.22$) and "risk reduction" ($M=3.11$) nor between "risk reduction" and "influence of others" ($M=3.04$); however, the mean for "ease of use" was

significantly higher than for “influence of others.” There was also no significant difference between the means for “influence of others” and “price considerations” ($M=2.93$), but the mean for “risk reduction” was significantly higher than that for “price considerations.” Finally, the mean for the motive “it’s cool” ($M=2.46$) was significantly lower than the means for all other motives. These results are presented graphically in Figure 24.

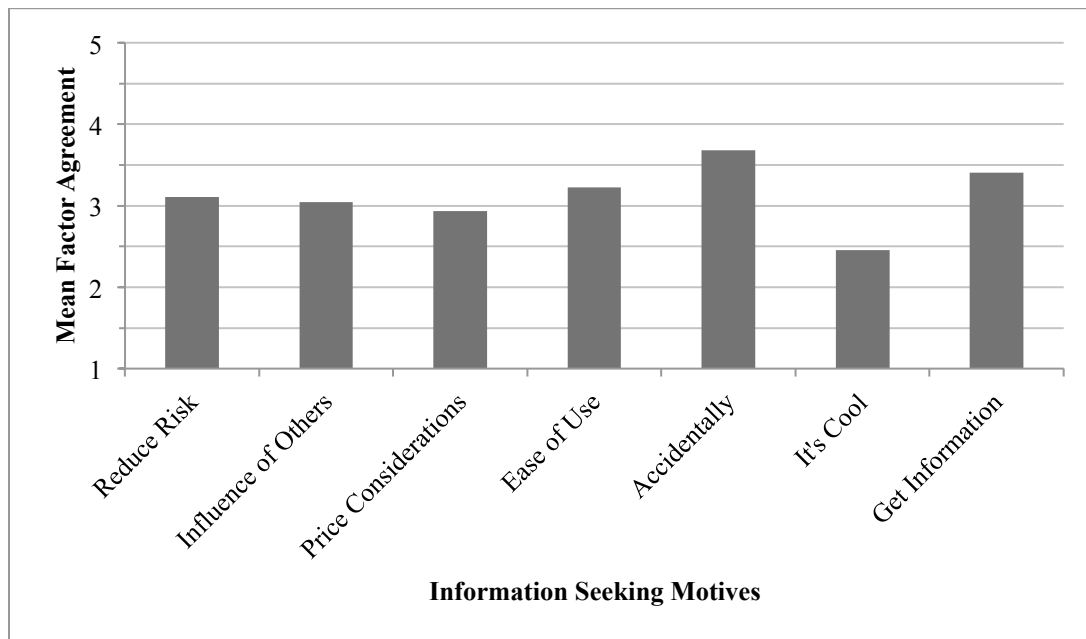


Figure 24. Means for information seeking motives among friend/family information seekers on Twitter

Information sharing motives. Respondents were asked to report on a 5-point Likert scale (1=strongly disagree; 5=strongly agree) their motives for sharing movie information on Twitter. Items for the scale were adapted from the Rubin et al. (1988) Interpersonal Communication Motives scale. The means and standard deviations of each of the 27 scale items are reported in Table 17. Items were grouped according to the original scale’s five factors, and a reliability

analysis was run in SPSS for each factor. Cronbach's alpha was greater than 0.7 for each of the factors.

Table 17. Information sharing factor items and reliabilities.

Factor	Item	Mean*	SD
Pleasure M=2.88, SD=0.867 Cronbach's $\alpha = .920$	Because it is fun	3.11	1.105
	Because it is exciting	2.79	1.153
	To have a good time	2.85	1.132
	Because it is thrilling	2.45	1.009
	Because it is stimulating	2.66	1.111
	Because it is entertaining	3.34	1.103
	Because I enjoy it	3.33	1.098
	Because it peps me up	2.44	0.999
Affection M=2.66, SD=0.903 Cronbach's $\alpha = .881$	To help others	3.11	1.121
	To let them know that I care about their feelings	2.64	1.083
	To thank them	2.57	1.090
	To show encouragement	2.74	1.105
	Because I'm concerned about him or her	2.35	1.047
Inclusion M=2.32, SD=0.898 Cronbach's $\alpha = .877$	Because I need someone to talk to	2.24	1.016
	Because I just need to talk	2.47	1.118
	Because it makes me feel less lonely	2.15	1.006
	Because it is reassuring to know someone is there	2.40	1.062
Escape M=2.70, SD=0.821 Cronbach's $\alpha = .874$	To put off something I should be doing	3.34	1.184
	Because I have nothing better to do	2.96	1.180
	To get away from pressures and responsibilities	2.40	1.005
	Because it relaxes me	2.49	1.019
	Because it allows me to unwind	2.60	1.077
	Because it is a pleasant rest	2.71	1.088
	Because it makes me feel less tense	2.40	1.077
Control M=2.43, SD=0.879 Cronbach's $\alpha = .786$	Because I want someone to do something for me	2.32	1.015
	To tell him or her what to do	2.54	1.067
	To get something I didn't have	2.40	1.075
*Measured on a 5 point Likert scale {1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree}			

RQ7. What motivates Twitter users to share movie information from (a) traditional media; (b) professional film critics; (c) bloggers; (d) online-only media; (e) official sources of movie information; (f) public figures; (g) friends and family? To determine whether individuals

who report higher likelihoods to share information from certain sources have different motives for doing so, a repeated-measures ANOVA was conducted using the respondents reporting information sharing from each source. To determine who the information sharers were for each source, the ordinal scale used to classify information sharing likelihood for each source was collapsed into two categories: respondents who reported that they were somewhat likely, likely, or very likely to share information from a source were classified as information sharers for that source. Respondents who indicated that they were neither likely nor unlikely, somewhat unlikely, unlikely, or very unlikely were categorized as non-sharers. The numbers and percentages of sharers for each information source are presented in Table 18 below.

Table 18. Percentages and numbers of information sharers across sources

Information Source	N (Total)	% Sharers	n (Sharers)
Friends/Family	214	84.6	181
Public Figures	214	65.4	140
TV/Radio	213	42.5	91
Newspapers/Magazines	214	39.3	84
Official Film Accounts	213	37.6	80
Bloggers	212	35.4	75
Movie Theaters	213	32.9	70
Movie Studios	213	31.9	68
Online-only Media	209	28.2	59
Critics	212	22.6	48

For each repeated-measures ANOVA, non-sharers for the information source were filtered out using the select cases function in SPSS. Each of the five factors of motives for sharing information on Twitter was set up as a within-subjects variable. The assumption of sphericity was violated for all tests; therefore Greenhouse-Geisser corrections were applied. Within each information source, the omnibus ANOVA revealed significant differences in information sharing motives. These differences were explored using post-hoc dependent samples

t-tests with a Bonferroni adjustment. Results for information sharing motives for each information source are reported below.

Newspapers/magazines. For newspaper and magazine information sharers, Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(9) = 43.148$, $p < .05$; therefore, a Greenhouse-Geisser correction was applied ($\epsilon = 0.808$). A repeated measures ANOVA revealed a significant difference in motives for sharing information, $F(3.232, 268.266) = 34.371$, $p < .05$, partial $\eta^2 = .293$. *Post-hoc* analysis with a Bonferroni adjustment showed that, for respondents that reported sharing information from newspapers/magazines, the mean for the motive "pleasure" ($M=3.18$) was significantly higher than for all other motives. The difference between "affection" ($M=2.91$) and "escape" ($M=2.90$) was not significant; however, these two motives had significantly higher means than "inclusion" ($M=2.50$) and "control" ($M=2.57$), which were not significantly different from one another. Figure 25 presents these results graphically.

TV/radio. For TV and radio sharers, Mauchly's Test of Sphericity showed that the assumption of sphericity had been violated, $\chi^2(9) = 55.613$, $p < .05$. A Greenhouse-Geisser correction was applied ($\epsilon = 0.773$). A repeated measures ANOVA indicated a significant difference in motives for sharing information, $F(3.091, 278.217) = 33.789$, $p < .05$, partial $\eta^2 = .273$. *Post-hoc* analysis with a Bonferroni adjustment revealed that, for respondents that reported sharing information from TV/radio sources, the mean for the motive "pleasure" ($M=3.22$) was significantly higher than for all other motives. The difference between "affection" ($M=2.95$) and "escape" ($M=2.92$) was not significant; however, these two motives had significantly higher means than "control" ($M=2.60$) and "inclusion" ($M=2.55$), which were not significantly different from one another. These results are presented in Figure 26.

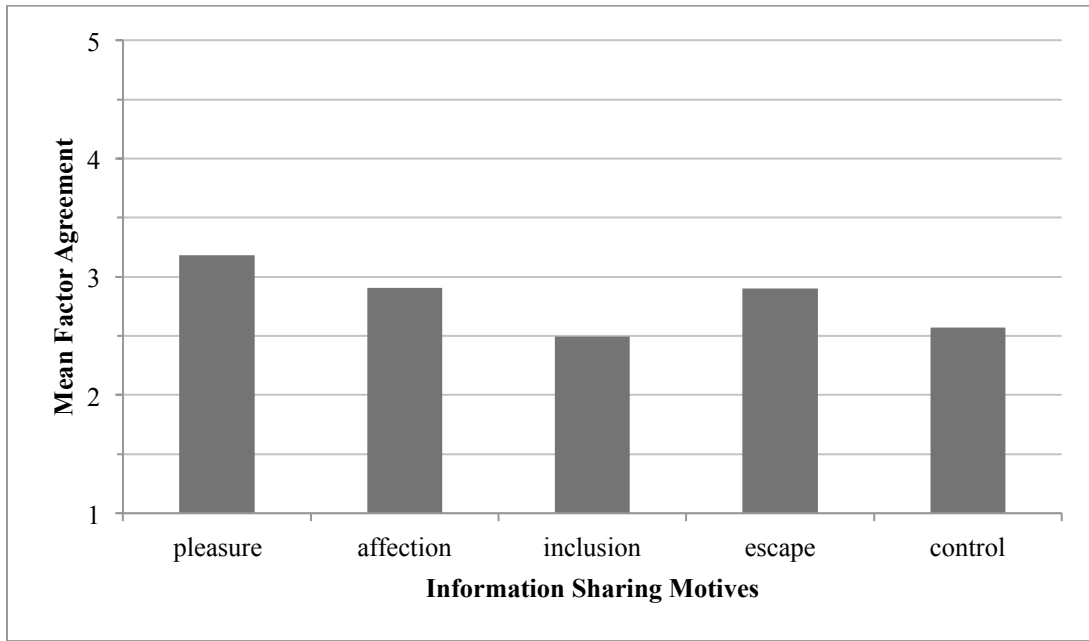


Figure 25. Means for information sharing motives among newspaper/magazine information sharers on Twitter

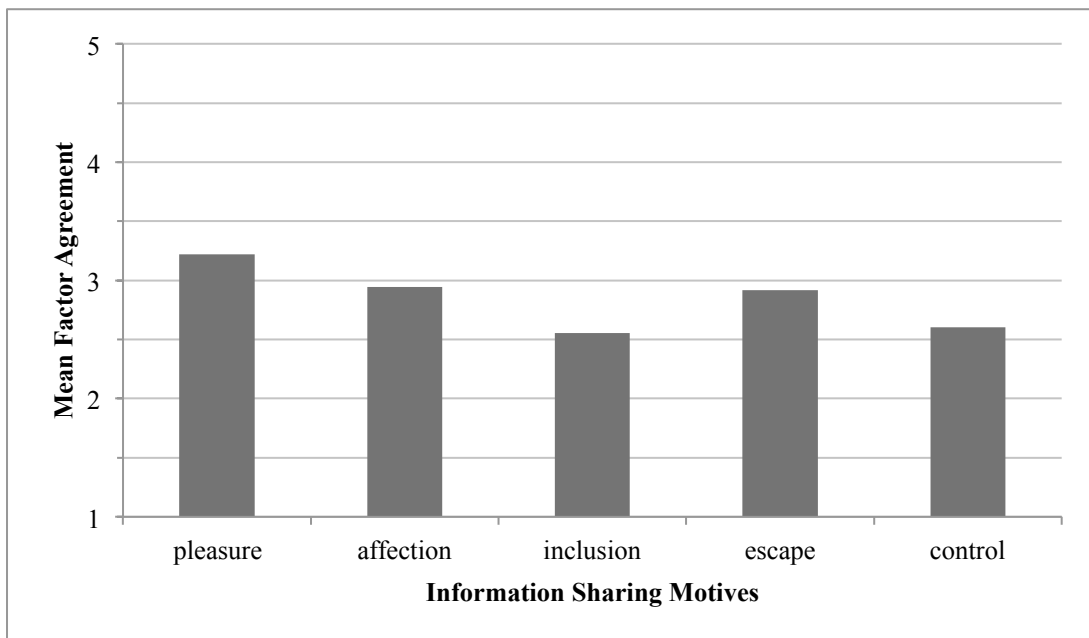


Figure 26. Means for information sharing motives among TV/radio information sharers on Twitter

Movie studios. For movie studios, Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(9) = 34.604, p < .05$; therefore, a Greenhouse-Geisser correction was applied ($\epsilon = 0.804$). A repeated measures ANOVA revealed a significant difference in motives for sharing information, $F(3.217, 215.534) = 22.533, p < .05$, partial $\eta^2 = .252$. *Post-hoc* analysis with a Bonferroni adjustment were conducted. As shown in Figure 27, for respondents that reported sharing information from movie studios, the mean for the motive "pleasure" (M=2.56) was significantly higher than for all other motives. The difference between "affection" (M=3.02) and "escape" (M=3.00) was not significant; however, these two motives had significantly higher means than "control" (M=2.67) and "inclusion" (M=2.65), which were not significantly different from one another.

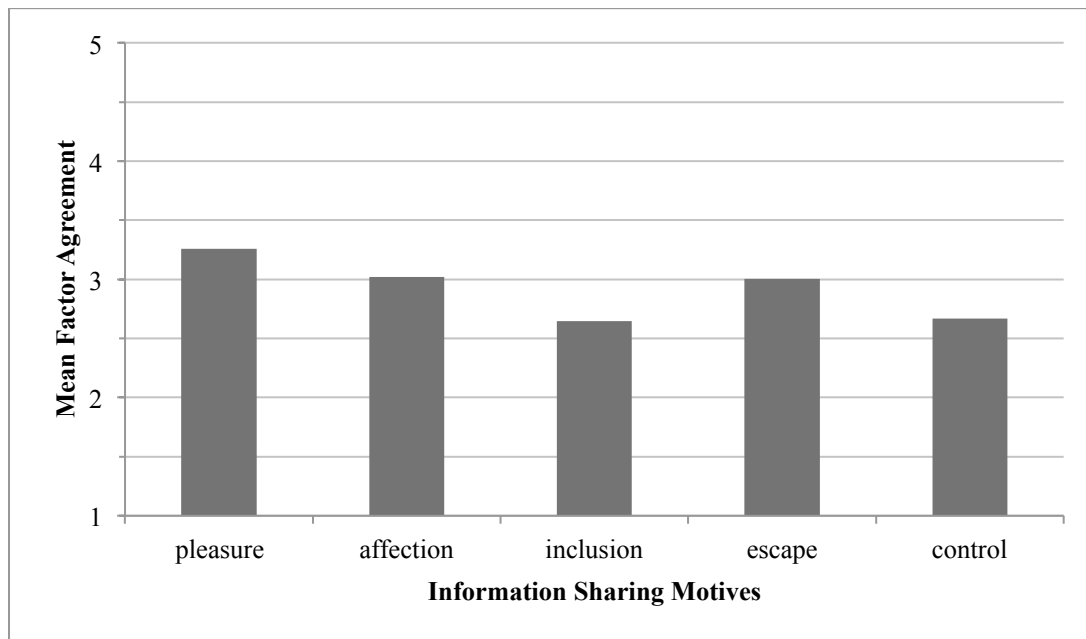


Figure 27. Means for information sharing motives among movie studio information sharers on Twitter

Official film Twitter accounts. For the official Twitter accounts for films, Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(9) = 45.490$, $p < .05$. Therefore, a Greenhouse-Geisser correction was applied ($\epsilon = 0.772$). A repeated measures ANOVA indicated a significant difference in motives for sharing information, $F(3.089, 244.045) = 28.596$, $p < .05$, partial $\eta^2 = .266$. *Post-hoc* analysis with a Bonferroni adjustment revealed that, for respondents who reported sharing information from official film Twitter accounts, the mean for the motive "pleasure" ($M=3.23$) was significantly higher than for all other motives. The difference between "affection" ($M=2.96$) and "escape" ($M=2.96$) was not significant; however, these two motives had significantly higher means than "control" ($M=2.64$) and "inclusion" ($M=2.54$), which were not significantly different from one another. These results are presented in Figure 28.

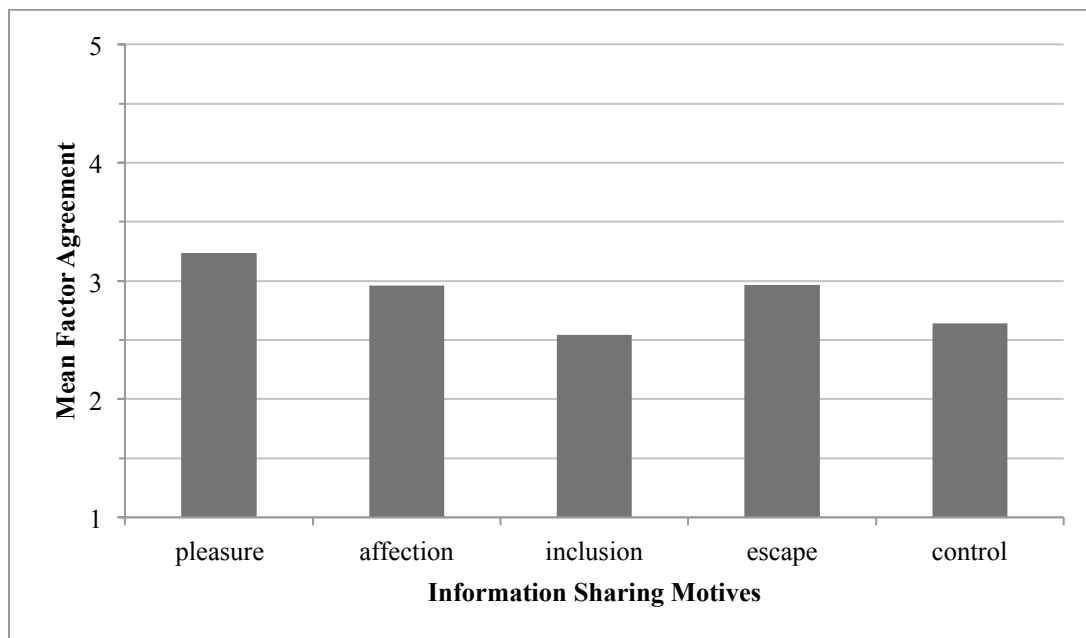


Figure 28. Means for information sharing motives among official movie account information sharers on Twitter

Professional film critics. For professional film critics, Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(9) = 23.576, p < .05$. A Greenhouse-Geisser correction was applied ($\epsilon = 0.807$). A repeated measures ANOVA revealed a significant difference in motives for sharing information, $F(3.228, 151.712) = 18.375, p < .05$, partial $\eta^2 = .281$. *Post-hoc* analysis was conducted with a Bonferroni adjustment. As shown in Figure 29, there was no significant difference between the means for the motives "pleasure" (M=3.26) and "affection" (M=3.02); however, the mean for "pleasure" was significantly higher than the means for all other motives. There were no significant differences among the means for "affection," "escape" (M=2.92), and "control" (M=2.69), and the means for "control" and "inclusion" (M=2.51) were not significantly different from one another. However, the means for "affection," "escape," and "control" were significantly higher than the mean for "inclusion."

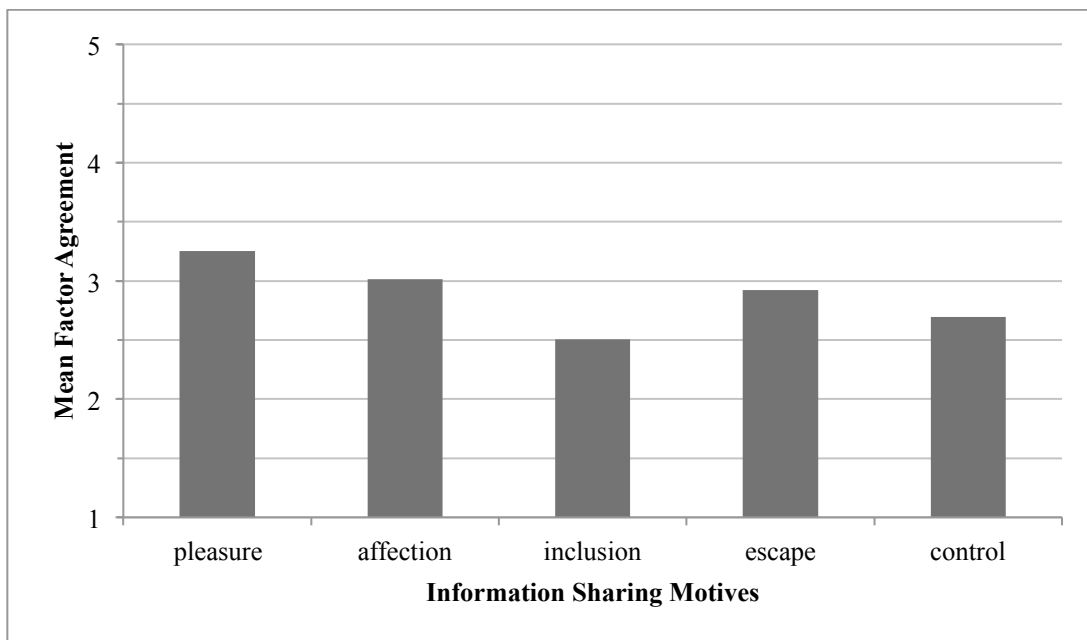


Figure 29. Means for information sharing motives among professional film critic information sharers on Twitter

Bloggers. For blog information sharers, Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(9) = 25.535, p < .05$, and a Greenhouse-Geisser correction was applied ($\epsilon = 0.882$). A repeated measures ANOVA indicated a significant difference in motives for sharing information, $F(3.528, 261.054) = 29.896, p < .05$, partial $\eta^2 = .288$. *Post-hoc* analysis was conducted with a Bonferroni adjustment. As shown in Figure 30, for respondents that reported sharing information from bloggers, the mean for the motive "pleasure" (M=3.25) was significantly higher than for all other motives. The difference between "affection" (M=2.97) and "escape" (M=2.96) was not significant; however, these two motives had significantly higher means than "control" (M=2.61) and "inclusion" (M=2.49), which were not significantly different from one another.

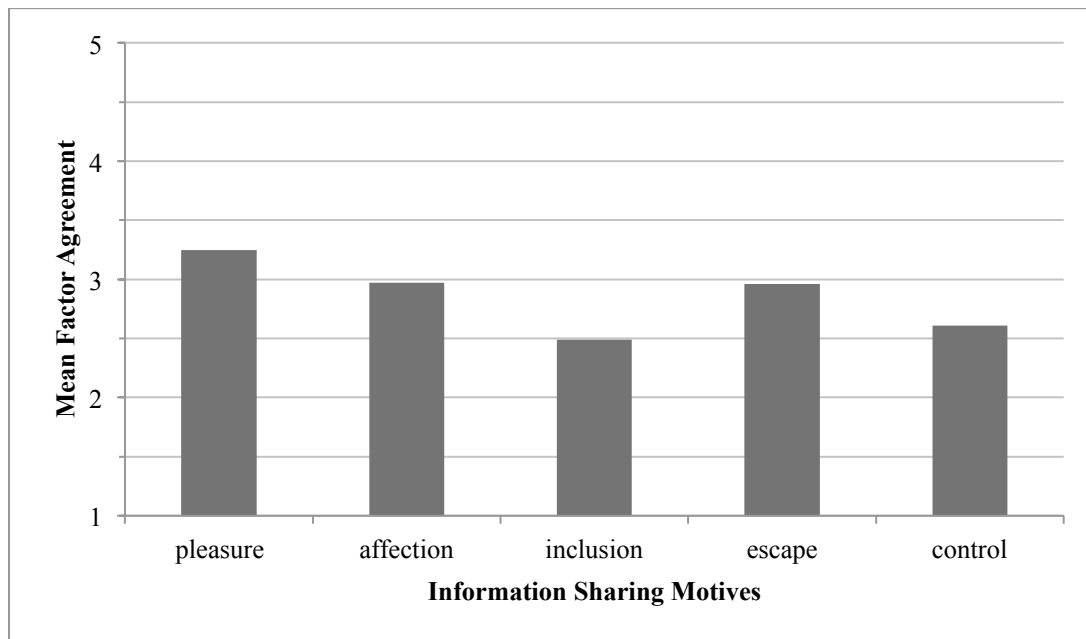


Figure 30. Means for information sharing motives among blog information sharers on Twitter

Online-only media outlets. For sharers of information from online-only media outlets, Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(9) = 29.598, p < .05$. A Greenhouse-Geisser correction was applied ($\epsilon = 0.866$). A repeated measures ANOVA revealed a significant difference in motives for sharing information, $F(3.464, 315.205) = 31.284, p < .05$, partial $\eta^2 = .256$. *Post-hoc* analysis with a Bonferroni adjustment revealed that, for respondents that reported sharing information from online-only media, the mean for the motive "pleasure" ($M=3.20$) was significantly higher than for all other motives. The difference between "affection" ($M=2.90$) and "escape" ($M=2.97$) was not significant; however, these two motives had significantly higher means than "control" ($M=2.63$) and "inclusion" ($M=2.55$), which were not significantly different from one another. These results are presented in Figure 31.

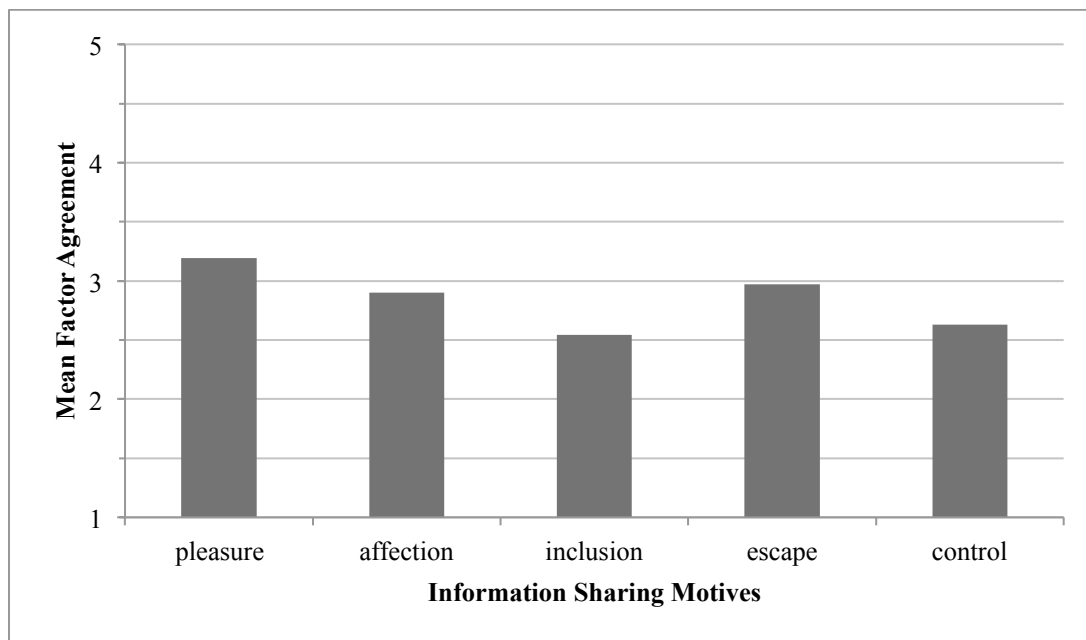


Figure 31. Means for information sharing motives among online-only media outlet information sharers on Twitter

Movie theaters. For movie theater information sharers, Mauchly's Test of Sphericity indicated the assumption of sphericity had been violated, $\chi^2(9) = 18.085$, $p < .05$, and a Greenhouse-Geisser correction was applied ($\varepsilon = 0.894$). A repeated measures ANOVA revealed a significant difference in information-sharing motives, $F(3.575, 246.703) = 21.820$, $p < .05$, partial $\eta^2 = .240$. *Post-hoc* analysis with a Bonferroni adjustment revealed that, for respondents who reported sharing information from theaters, there was no significant difference between the means for the motives "pleasure" ($M=3.09$) and "escape" ($M=2.91$). The mean for "pleasure" was significantly higher than that for "affection" ($M=2.87$); however, there was not a significant difference between the means for "escape" and "affection." Finally, the means for "control" ($M=2.52$) and "inclusion" ($M=2.58$) were not significantly different from one another but were significantly lower than the means for all other motives. These results are presented in Figure 32.

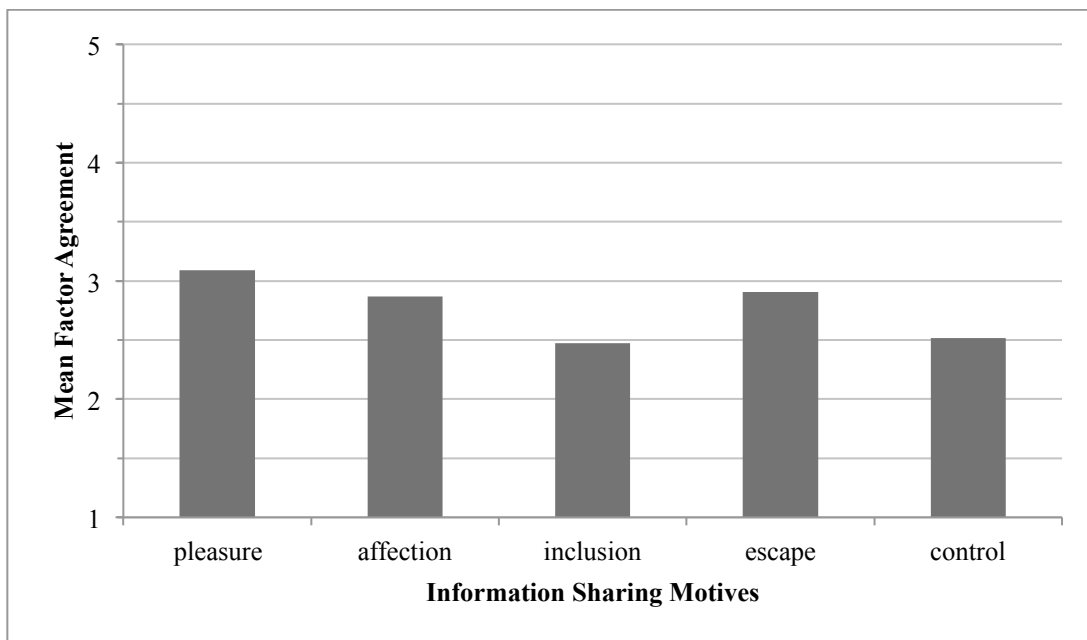


Figure 32. Means for information sharing motives among movie theater information sharers on Twitter

Public figures. Information sharing motives for public figure movie information sharers were analyzed next. Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(9) = 66.133$, $p < .05$; therefore, a Greenhouse-Geisser correction was applied ($\epsilon = 0.827$). A repeated measures ANOVA revealed a significant difference in motives for sharing information, $F(3.310, 460.045) = 45.216$, $p < .05$, partial $\eta^2 = .245$. *Post-hoc* analysis with a Bonferroni adjustment revealed that, for respondents that reported sharing information from public figures, the mean for the motive "pleasure" ($M=3.10$) was significantly higher than for all other motives. The difference between "affection" ($M=2.83$) and "escape" ($M=2.84$) was not significant; however, these two motives had significantly higher means than "control" ($M=2.52$) and "inclusion" ($M=2.44$), which were not significantly different from one another. These results are presented graphically in Figure 33.

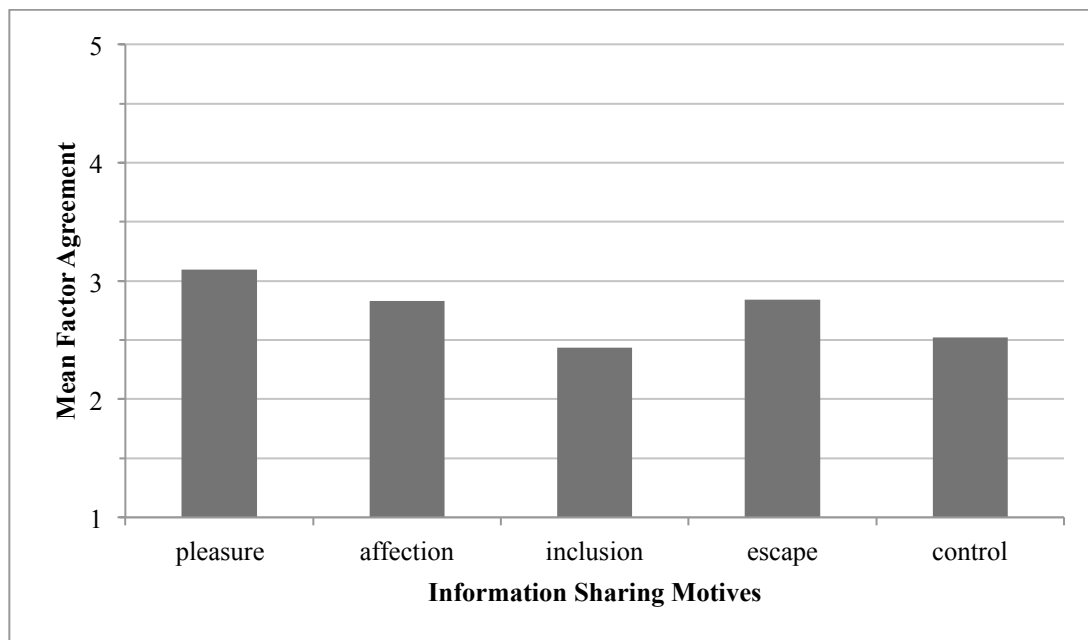


Figure 33. Means for information sharing motives among public figure information sharers on Twitter

Friends/family. Finally, for sharers of movie information from friends and family, Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2(9) = 60.404, p < .05$; therefore, a Greenhouse-Geisser correction was applied ($\varepsilon = 0.865$). A repeated measures ANOVA revealed a significant difference in motives for sharing information, $F(3.459, 622.621) = 51.467, p < .05$, partial $\eta^2 = .222$. *Post-hoc* analysis were conducted with a Bonferroni adjustment. As shown in Figure 34, for respondents that reported sharing information from friends/family, the mean for the motive "pleasure" (M=2.95) was significantly higher than for all other motives. The difference between "affection" (M=2.72) and "escape" (M=2.75) was not significant; however, these two motives had significantly higher means than "control" (M=2.45) and "inclusion" (M=2.33), which were not significantly different from one another.

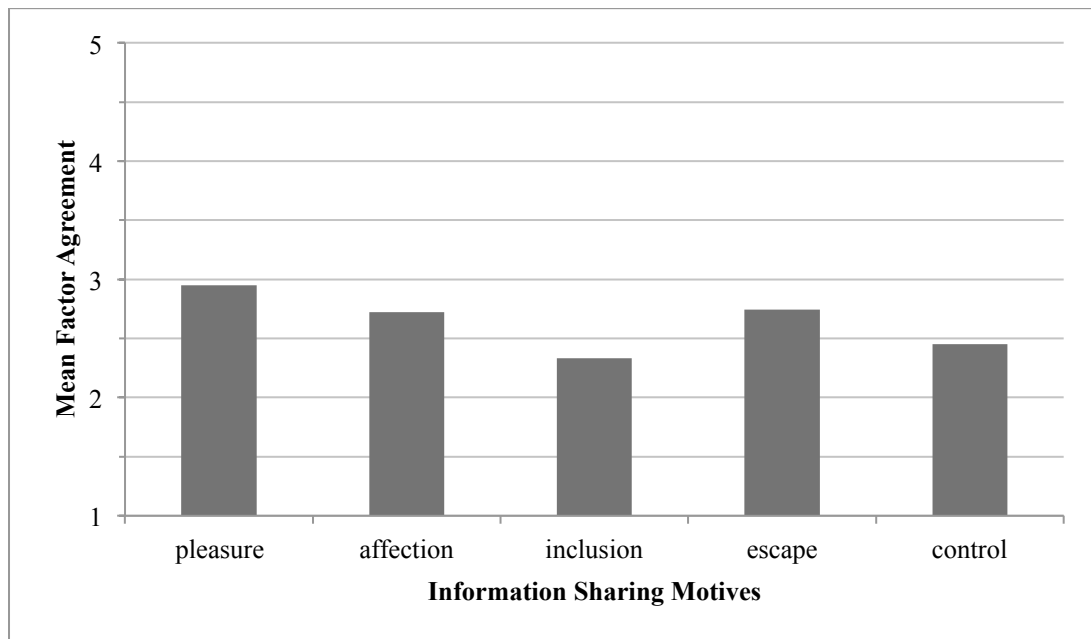


Figure 34. Means for information sharing motives among friend/family information sharers on Twitter

Summary

A survey of 253 undergraduate students suggests that, on Twitter, they are most likely to seek and share information about movies their family members and friends, followed by public figures. Frequent moviegoers were neither more likely to seek out nor more likely to share information on Twitter from any of the identified movie sources than were non-frequent moviegoers, despite frequent moviegoers reporting a higher likelihood to seek information in general and reporting significantly higher levels of movie involvement.

In terms of information seeking motives, overall respondents reported the highest agreement with the items associated with accidentally coming across movie information on Twitter, rather than actively seeking it out. This corresponds well with how the service functions—users are presented with a feed of all the messages from the sources they follow, so it is likely they are checking Twitter for a variety of information as opposed to looking solely for information about movies. However, a majority of users did report at least some likelihood to look for movie information on Twitter, satisfying the assumption of uses and gratifications theory that audiences' media consumption is active, or goal directed (Katz et al., 1974). In fact, for most sources, the second highest-ranking motive is related to information seeking. For official sources of movie information (movie studios and official film Twitter accounts) and professional film critics in particular, there was no difference between the motives “accidentally” and “to get information.” It is possible that users follow these accounts with the intention of receiving updates on films but may not necessarily be actively seeking the information provided by these sources when they receive these updates.

Respondents indicated similar levels of agreement with items for the motives “risk reduction,” “influence of others,” “price considerations,” and “ease of use” across most sources.

Notably, for newspapers and magazines, there was no difference between the motives “to get information” and “ease of use,” which could possibly relate to diminishing circulations for print media. This same pattern emerged for professional film critics, who have traditionally been tied to major print publications, but not for electronic media (TV/radio). However, respondents who sought information from electronic media did indicate more agreement with the “ease of use” items than for “risk reduction,” “influence of others,” or “price considerations.”

In terms of nontraditional media, there were slightly different patterns of information-seeking motives. For online-only media outlets, there were no differences between any of the top three motives for seeking information (accidentally, information, and ease). For bloggers, there was no difference between “ease of use” and “risk reduction,” but “accidentally” and “to get information” ranked higher.

For public figures as well as friends and family, there were no differences between “risk reduction” and “influence of others” or “influence of others” and “price considerations.” However, for public figures, “ease of use” ranked higher than “risk reduction,” while this difference did not exist for friends and family. Once more, this could reflect the more immediate availability of family and friends for opinions, whereas Twitter may very well be the easiest way for individuals to access the opinions of celebrities or other public figures.

In terms of information sharing motives, “pleasure” ranked the highest for all information sources—though it was not significantly higher than “escape” for movie theaters or “affection” for professional film critics—suggesting that, regardless of the source of the movie information, when the respondents pass that information along, they do so because they enjoy it. There were no differences in respondents reported agreement with the motives related to “inclusion” and

“affection,” which deal with two sides of social interaction. The motives of “escape” and “control” also ranked similarly for all information sources, with the lowest means.

CHAPTER 7

DISCUSSION

This Chapter begins with a discussion of the results of the two studies described in Chapters 5 and 6 and their implications for both academics and movie marketers. A discussion of the limitations of the studies and directions for future research follows.

Consistent with the high likelihood of media sources to appear as hubs and bridges in films' eWOM networks, more than half of survey respondents from study two reported following traditional media sources (i.e., newspapers, magazines, TV, radio) on Twitter. However, they reported significantly higher likelihoods to seek out and pass along movie information from friends, family, and public figures than any other information source. In fact, there were no significant differences in respondents' reported likelihood to seek information from traditional media sources and most other sources (with movie studios and film critics being the exceptions). Respondents were significantly more likely to share information from television and radio sources than from official film Twitter accounts, bloggers, or movie theaters. There were no significant differences for newspapers/magazines and these other sources. However, respondents still reported a higher likelihood to share information from traditional media sources than from movie studios, online-only media outlets, and professional film critics.

The higher reported likelihoods to seek out and share information from public figures and friends and family members correspond both to the finding that hubs and bridges with no affiliation were the second most common in the Twitter eWOM networks and to the large number of smaller connected components in the graphs. Though the majority of users in these

smaller connected components were identified as hubs or bridges and therefore not included in the content analysis, it is possible that these connected components represent eWOM passing between friends, family members, colleagues, or acquaintances. This possibility is discussed further in the limitations section.

Together, these findings suggest that Twitter users prefer seeking out and sharing eWOM from individuals with whom they have offline relationships (i.e., friends and family members) or public figures, whom they may identify with more than media or official brand communicators. However, they still seek information in general from media sources, as evidenced by the number of survey respondents indicating that they follow media accounts and the prevalence of media accounts serving as gatekeepers in the eWOM networks. Therefore, although Twitter allows movie marketers direct access to their audience, gatekeepers still play an important role in diffusing movie information via eWOM. On a related note, while talking bridges in the Twitter eWOM networks were more likely to be media than non-talking bridges, the same pattern did not emerge for listening bridges. That is, media were equally as likely to be listeners in the networks than non-listeners. This suggests that, on Twitter, media are seeking information from other users as well as disseminating information.

Contributions of Research to the Field

Academic. This research offers important contributions to academic research on both gatekeeping and eWOM. Specifically, these studies extend gatekeeping research in mass communication past editorial decisions influenced by professional standards and the backgrounds and experiences of mass communication practitioners. Study one does this by using network gatekeeping theory alongside structural hole theory to examine how individuals act as gatekeepers of eWOM for their networks by selecting their own sources of information on

Twitter and determining whether to pass that information on to their followers. Study two examined the motivations for seeking out and sharing information from a different population of Twitter users.

This research also contributes to the understanding of how eWOM for experiential goods specifically spreads through Twitter, as much of the current research in this area focuses on online communities and websites built specifically for product reviews. Both studies focus on the differential importance of traditional and nontraditional media, official brand communicators, professional third-party reviewers, and individuals with no affiliation on the spread of eWOM for motion pictures.

Industry. On the industry plane, this research provides insights to marketers of experiential products—such as books, movies, and music—about how eWOM spreads through online social networks based on individuals’ gatekeeping decisions. It also has implications for the value of reviews from professional third-party critics and bloggers. Though professional critics affiliated with large media outlets may have large followings online, they did not appear often in the eWOM networks examined here. However, when they did appear, they served as important information sources for individuals who act as gatekeepers to spread these critics’ reviews to others in their networks.

This knowledge, may also contribute to the entertainment industry and advertising professionals’ understanding of how and why buzz builds on social media for entertainment goods. It can also give brand managers an idea of the sources of information to monitor for early indications of whether eWOM for a product will be positive or negative. Finally, it may also help them understand how college students, an important demographic for the film industry, use

social media to seek out and share information from these sources as well as their motivations for doing so.

Limitations and Directions for Future Research

This study, like all academic research, has limitations. Conducting a network analysis that captures only films released in November may not be generalizable to eWOM about other kinds of entertainment goods or even to all eWOM surrounding theatrical releases. For example, “artsy” films are often released in the fall or winter to increase their chances of Academy Award contention (Bart, 2007), and critical reviews of such films are more highly sought than of “event” films, such as summer blockbusters (Reinstein & Snyder, 2005). Because only nine films were analyzed in the network analysis, it was not possible to compare hubs and bridges across genres. However, a large number of the hubs and bridges with no affiliation for the film, *The Twilight Saga, Breaking Dawn, Part 2*, appeared to be fans of the *Twilight* franchise. Future research could purposefully select films from different genres (instead of from a certain time period) to compare the affiliations of hubs and bridges that emerge in those eWOM networks.

Additionally, Twitter is only one of the many avenues consumers may use to seek out information about movies online. Comparing eWOM for films across multiple social networking websites is also an avenue for future research, as it is possible that different users are more influential on different platforms.

Another limitation of study one is that, although user descriptions and the content of tweets from all users were available in the dataset, only the affiliations of hubs and bridges were coded. Coding all user descriptions would allow for comparisons of the number of hubs and bridges associated with a particular type of information source and the total number of users in the network also falling into that category. For example, although the *New York Times* and *Los*

Angeles Times both appear as hubs in the eWOM networks, it is possible that many more newspapers are present in the data and that only these two vehicles, rather than all newspapers, are especially influential in the spread of movie eWOM. The same applies to official sources of movie information. While film industry sources did not appear as hubs and bridges as often as media-affiliated accounts and those with no affiliation, this does not mean these information sources are not present in the network. Therefore, it is not possible to make assumptions about the reason official movie information sources appear as hubs and bridges in some networks but not others. Also, coding the tweets for each user in the network could provide valuable insights about what types of information hubs and bridges are disseminating as well as provide a better picture of each eWOM network as a whole.

Finally, the survey sample also limits the generalizability of the proposed research. In addition to the sample being skewed heavily female (84%), using college students as respondents may not produce results that are representative of the general population. Further limiting the generalizability of the sample, students were recruited from introductory courses in advertising and public relations. Therefore, it is possible these students use media differently than even another student-only sample. In this case, it was not possible to compare the results of the network analysis and survey because each study used a different population. Future research in this area should aim to analyze both the behaviors and motivations of a single, more generalizable population.

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APPENDIX A

CODER MANUAL

1. Start by looking at the user description provided in the spreadsheet. If an affiliation is clear, code the vertex into that category and proceed to the next item.
2. If the user description provides no clear affiliation, locate the user's active Twitter profile by entering "<http://www.twitter.com/VERTEXNAME>" into your browser, substituting the user's Twitter handle for the bolded text.
 - a. If the user has updated his or her user description since the time of data collection, use the updated description to code the vertex.
 - b. If an updated description is not present or affiliation is unclear, look for a user-provided website below the user's description. Follow the link to determine affiliation.
 - c. If affiliation is still unclear, look for a blue "verified user" badge on the user's profile. If this badge is present, do a Google search to determine affiliation.
3. If a user falls into two categories, code the user into the category that comes first on the coding sheet. For example, if a user is an actor that appears in the film the dataset centers around, code that user as "Film Industry: Actor" rather than "No Affiliation: Entertainer."
4. Code sections A-G for each user. Do not leave any cells blank. If a user is not affiliated with an industry, enter the code for N/A and continue to the next category.

A. Source

1. Film Industry: Any individual or entity associated with the production or distribution of feature films. Includes studios, distributors, cast, crew, and theaters.
→ *Code Section B*
→ *Select N/A for all other sections*
2. Media: Any individual or entity (traditional or digital) that provides information and/or entertainment to an audience on a regular or semi-regular basis. Includes print media, broadcast media, websites, blogs, and those who own or create content for such media. DOES NOT include personal social media accounts.
→ *Code Sections C1, C2, E, and F*
→ *Select N/A for Sections B and D*
3. Other: Twitter accounts affiliated with an industry or organization unrelated to film or media.
→ *Code Section D*
→ *Select N/A for all other sections*
4. No Affiliation: Personal Twitter accounts not associated with the above industries. Includes public figures. Does NOT include cast and crew of the film designated in the film column.
→ *Code Sections D and F*
→ *Select N/A for all other sections*
5. Unknown: No user description provided or account no longer active.
→ *Select N/A for all other sections*

B. Film Industry Role

1. Official Film Twitter Account: Twitter handle matches the official account for the film designated in the film column (*see film key below*).
2. Studio/Production Company/Distribution Company: Check IMDB.com for the organization's name to determine association with the film designated in the film column (*see film key below*).
3. Producer: Check IMDB.com for the user's full name to determine association with the film designated in the film column (*see film key below*).
4. Director: Check IMDB.com for the user's full name to determine association with the film designated in the film column (*see film key below*).
5. Cast Member: Check IMDB.com for the user's full name to determine association with the film designated in the film column (*see film key below*).
6. Writer: Check IMDB.com for the user's full name to determine association with the film designated in the film column (*see film key below*).
7. Other Crew: Check IMDB.com for the user's full name to determine association with the film designated in the film column (*see film key below*).

8. Movie Theater: Organization whose primary business is the presentation of feature films.
9. Other: All other individuals/organizations associated with the film industry.
10. N/A: User not associated with film industry.

C1. Media Type

1. Newspaper: Explicit reference to a “newspaper” or a daily or weekly print publication and/or those affiliated with such publications. Includes online newspapers that also have print circulations. Does NOT include news magazines or magazine supplements to newspapers.
2. Magazine: Explicit reference to a “magazine” or weekly or monthly print publication and/or those associated with such publications. Includes online magazines that also have print circulations.
3. Television: Explicit reference to a television show, channel, or station and/or affiliated persons. Includes both cable and broadcast, but NOT streaming websites with a solely digital presence.
4. Radio: Explicit reference to radio station or show and/or affiliated persons.
5. Book Publisher: Explicit reference to a traditional or digital publishing house and/or affiliated persons, NOT including authors.
6. Blog: Online web log or video blog with one or more contributors. Explicit mention of “blog/vlog” or “blogger/vlogger” in user description AND/OR a link to a tumblr, blogger, wordpress, blogspot, or vlogger’s YouTube channel.
7. Online-only News Outlet: Website whose main purpose is to provide current information in the form of news articles on a topic or set of topics and does NOT have an offline presence. Includes both general and specialty (e.g., sports, entertainment) news websites.
8. Fan Site/Community: Website or social media account centered around a specific topic such as a film, book, or celebrity. More focused subject matter than an online-only news outlet.
9. Other Website: All other websites.
10. N/A: The user is not affiliated with media of any kind.

C2. Media Role

1. Organization: Twitter account represents all or part of a medium, NOT an individual associated with that medium. Exception: descriptions referencing a specific person who runs the account on behalf of the entire organization.
2. Owner/Founder/Sole Contributor: User explicitly states owning or founding the medium with which they are associated, or a Google search clearly links them to owning or founding the medium. AND/OR any linked media have no other regular contributors.
3. Contributor: User explicitly states that he or she provides content, writes for, appears on, or is otherwise associated with a medium.

4. Unknown: User is explicitly associated with a medium, but the nature of that association is unclear.
5. N/A: User is not associated with media.

D. No Affiliation (Individual Actors)

1. Entertainers: Self-defined musicians, actors, comedians, authors, artists AND/OR users who provide booking information in a profile description.
2. Other Public Figures: Any other users conceivably in the public's eye (e.g., athletes, political figures, experts, etc.)
3. Unknown: Individual with no explicit affiliation. Includes personal Twitter accounts and accounts with no descriptions.
4. N/A: User description or web search yields an explicit affiliation.

E. Movie Specific?

1. No: Media affiliation but movies/films not explicitly mentioned in description.
2. Yes: Media affiliation AND movies/films explicitly mentioned in description.
3. N/A: No media affiliation

F. Film Critic?

1. No: User associated with media or has no affiliation, but no explicit mention of being a film critic or reviewer in user description/ Twitter handle.
2. Yes: User associated with media or has no affiliation AND explicit mention of being a film critic or reviewer in user description/ Twitter handle.
3. N/A: Individual not associated with media or is associated with another industry.

The numbers found under the “film” column in your codebook correspond to the following films. For films with an associated official Twitter account, you will also find the handle below.

Film	Movie Name	Official Twitter Account
1	Flight	N/A
2	The Man with the Iron Fists	N/A
3	Wreck-it Ralph	@wreckitralph
4	Skyfall	@007
5	The Twilight Saga: Breaking Dawn, Part 2	@twilight
6	Life of Pi	@LifeofPiMovie
7	Rise of the Guardians	N/A
8	Red Dawn	@RedDawnFilm
9	Killing Them Softly	N/A
10	The Hobbit (pre-test)	@TheHobbitMovie
11	Playing for Keeps (pre-test)	@playingforkeeps

APPENDIX B

SURVEY INSTRUMENT

I agree to participate in a research study titled "Motivations to Seek Out and Share Online Information" conducted by Stephanie Stevens from the Grady College of Journalism and Mass Communication at the University of Georgia (985-981-0340) under the direction of Dr. Karen King, Grady College of Journalism and Mass Communication, University of Georgia (542-4998). I understand that my participation is voluntary.

I can refuse to participate or stop taking part at anytime without giving any reason, and without penalty or loss of benefits to which I am otherwise entitled.

I understand that to participate in this research, I must be 18 years or older and be currently enrolled as a student at the University of Georgia.

The purpose of this study is to examine how and why users of social networking websites seek out and share information. If I volunteer to take part in this study, I will be asked to answer questions about how I use social networking websites, which will take 15-20 minutes.

The benefits for me are that the survey may help me understand how I use social networking websites to obtain information. The researcher also hopes to learn more about how and why information travels through online social networks.

No risks, discomforts, or stresses are expected.

The results of this participation will be completely anonymous. No personal identifiers will be attached to my responses.

I have the opportunity to enter a drawing for one of two \$25 gift cards in which everyone has an equal chance of receiving the incentive whether or not they have completed the survey. I may choose to enter the gift card drawing without completing the survey by selecting "I do not wish to participate" below. If I am enrolled in a course offering extra credit for my participation, I will also be asked to enter my UGA email address. I understand my contact information will in no way be linked to my survey responses, but that there is a limit to the confidentiality that can be guaranteed due to the technology itself.

The researcher will answer any further questions about the research, now or during the course of the project, and can be reached by email at sstev17@uga.edu or phone at (985) 981-0340.

Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 629 Boyd Graduate Studies Research Center, Athens, Georgia 30602; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu.

- ☐ I agree to participate in this research project.
- ☐ I do not wish to participate.

[If "I do not wish to participate is selected, Skip to End of Survey]

Q1. On which of the following social networking websites do you currently have an account? (Select all that apply.)

- ☐ Facebook (1)
- ☐ Twitter (2)
- ☐ YouTube (3)
- ☐ Pinterest (4)
- ☐ LinkedIn (5)
- ☐ Google+ (6)
- ☐ Foursquare (7)

Q2. When was the last time you used each of the following social networking websites?

	Within the last 24 hours (1)	Within the last week (2)	Within the last month (3)	Within the last 3 months (4)	Within the last 6 months (5)	Within the last year (6)	More than a year ago (7)	Never (8)
Facebook (1)	☐	☐	☐	☐	☐	☐	☐	☐
Twitter (2)	☐	☐	☐	☐	☐	☐	☐	☐
YouTube (3)	☐	☐	☐	☐	☐	☐	☐	☐
Pinterest (4)	☐	☐	☐	☐	☐	☐	☐	☐
LinkedIn (5)	☐	☐	☐	☐	☐	☐	☐	☐
Google+ (6)	☐	☐	☐	☐	☐	☐	☐	☐
Foursquare (7)	☐	☐	☐	☐	☐	☐	☐	☐

[If Q2: “Twitter” Is Greater Than or Equal to 5, Skip to Q8]

Q3. Which of the following types of users do you follow on Twitter? (Select all that apply.)

- ☐ Newspapers/Magazines (1)
- ☐ TV Shows/Radio Stations (2)
- ☐ Movie Studios (3)
- ☐ Official Twitter Accounts for Films (4)
- ☐ Professional Film Critics (5)
- ☐ Online Only Media Outlets (6)
- ☐ Bloggers (7)
- ☐ Movie Theaters (8)
- ☐ Public Figures (such as Celebrities, Athletes, or Politicians) (9)
- ☐ Friends/Family (10)

Q4. On Twitter, how likely are you to look for information about upcoming or newly released films from the following sources?

	Very Unlikely (1)	Unlikely (2)	Somewhat Unlikely (3)	Undecided (4)	Somewhat Likely (5)	Likely (6)	Very Likely (7)
Newspapers/ Magazines (1)	☐	☐	☐	☐	☐	☐	☐
TV Shows/ Radio Stations (2)	☐	☐	☐	☐	☐	☐	☐
Movie Studios (3)	☐	☐	☐	☐	☐	☐	☐
Official Twitter Accounts for Films (4)	☐	☐	☐	☐	☐	☐	☐
Professional Film Critics (5)	☐	☐	☐	☐	☐	☐	☐
Online Only Media Outlets (6)	☐	☐	☐	☐	☐	☐	☐
Bloggers (7)	☐	☐	☐	☐	☐	☐	☐
Movie Theaters (8)	☐	☐	☐	☐	☐	☐	☐
Public Figures (such as Celebrities, Athletes, or Politicians) (9)	☐	☐	☐	☐	☐	☐	☐
Friends/ Family (10)	☐	☐	☐	☐	☐	☐	☐

Q5. On Twitter, how likely are you to share information about upcoming or newly released films from the following information sources with others?

	Very Unlikely (1)	Unlikely (2)	Somewhat Unlikely (3)	Undecided (4)	Somewhat Likely (5)	Likely (6)	Very Likely (7)
Newspapers/ Magazines (1)	☐	☐	☐	☐	☐	☐	☐
TV Shows/ Radio Stations (2)	☐	☐	☐	☐	☐	☐	☐
Movie Studios (3)	☐	☐	☐	☐	☐	☐	☐
Official Twitter Accounts for Films (4)	☐	☐	☐	☐	☐	☐	☐
Professional Film Critics (5)	☐	☐	☐	☐	☐	☐	☐
Online Only Media Outlets (6)	☐	☐	☐	☐	☐	☐	☐
Bloggers (7)	☐	☐	☐	☐	☐	☐	☐
Movie Theaters (8)	☐	☐	☐	☐	☐	☐	☐
Public Figures (such as Celebrities, Athletes, or Politicians) (9)	☐	☐	☐	☐	☐	☐	☐
Friends/ Family (10)	☐	☐	☐	☐	☐	☐	☐

Q6. I look for information about movies on Twitter...

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
...so the chances of me making a bad decision are reduced. (1)	☐	☐	☐	☐	☐
...because I don't want to end up regretting a decision I make. (2)	☐	☐	☐	☐	☐
...to help me avoid making a risky decision. (3)	☐	☐	☐	☐	☐
...so that I can hear from people who have already seen the movie. (4)	☐	☐	☐	☐	☐
...because getting information on Twitter reduces the risk of making a bad choice. (5)	☐	☐	☐	☐	☐
...in order to make sure a movie is worth seeing. (6)	☐	☐	☐	☐	☐
...because I have seen others successfully seek out information on Twitter. (7)	☐	☐	☐	☐	☐
...because my peers seek out information on Twitter. (8)	☐	☐	☐	☐	☐
...because other people seem to be doing it successfully. (9)	☐	☐	☐	☐	☐
...in order to get the best value for my money. (10)	☐	☐	☐	☐	☐
...because it helps me find movies that are the highest quality. (11)	☐	☐	☐	☐	☐
...in order to get the highest quality product available. (12)	☐	☐	☐	☐	☐
...because the amount of effort I have to make to find information is small. (13)	☐	☐	☐	☐	☐
...because it is not a hassle for me to find the information I need. (14)	☐	☐	☐	☐	☐
...because I am able to research the movie conveniently from home, work, or school. (15)	☐	☐	☐	☐	☐
...because Twitter is the easiest way to get information. (16)	☐	☐	☐	☐	☐
...because I am able to compare different movies easily. (17)	☐	☐	☐	☐	☐

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
...when I am using Twitter and just happen to come across the subject. (18)	☐	☐	☐	☐	☐
...because I just come across it when I'm online. (19)	☐	☐	☐	☐	☐
...when I'm online and information just comes to me. (20)	☐	☐	☐	☐	☐
...because I spend a lot of time talking to others online and information just comes to me. (21)	☐	☐	☐	☐	☐
...in order to be more popular among my friends. (22)	☐	☐	☐	☐	☐
...because it's cool to seek information on Twitter. (23)	☐	☐	☐	☐	☐
...when I see a TV ad that makes me want to go online and learn more. (24)	☐	☐	☐	☐	☐
...because it is fun to use Twitter to find information. (25)	☐	☐	☐	☐	☐
...because I can get a variety of information from people who have positive and negative opinions. (26)	☐	☐	☐	☐	☐
...when I hear about a new movie and want to find out more about it. (27)	☐	☐	☐	☐	☐
...because I can get information from someone who is not trying to sell me something. (28)	☐	☐	☐	☐	☐

Q7. I pass along movie information from others on Twitter...

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
...because it's fun (1)	☐	☐	☐	☐	☐
...because I enjoy it (2)	☐	☐	☐	☐	☐
...because it's entertaining (3)	☐	☐	☐	☐	☐
...to help others (4)	☐	☐	☐	☐	☐
...to have a good time (5)	☐	☐	☐	☐	☐
...to let others know I care about their feelings (6)	☐	☐	☐	☐	☐
...to thank them (7)	☐	☐	☐	☐	☐
...to get away from what I'm doing (8)	☐	☐	☐	☐	☐
...because it peps me up (9)	☐	☐	☐	☐	☐
...to show others encouragement (10)	☐	☐	☐	☐	☐
...because it allows me to unwind (11)	☐	☐	☐	☐	☐
...because it's exciting (12)	☐	☐	☐	☐	☐
...because it relaxes me (13)	☐	☐	☐	☐	☐
...because it's stimulating (14)	☐	☐	☐	☐	☐
...to get something I don't have (15)	☐	☐	☐	☐	☐
...to get away from pressures (16)	☐	☐	☐	☐	☐
...because it's a pleasant rest (17)	☐	☐	☐	☐	☐
...because I'm concerned about them (18)	☐	☐	☐	☐	☐
...because it makes me feel less tense (19)	☐	☐	☐	☐	☐
...to put off something I should be doing (20)	☐	☐	☐	☐	☐
...because I have nothing better to do (21)	☐	☐	☐	☐	☐
...because it's reassuring to know someone's there (22)	☐	☐	☐	☐	☐
...because I want someone to do something for me (23)	☐	☐	☐	☐	☐
...because it's thrilling (24)	☐	☐	☐	☐	☐
...to tell others what to do (25)	☐	☐	☐	☐	☐
...because I just need to talk (26)	☐	☐	☐	☐	☐
...because I need someone to talk to (27)	☐	☐	☐	☐	☐
...because it makes me feel less lonely (28)	☐	☐	☐	☐	☐

[Non-Twitter Users Start Here]

For the following word or phrase pairs, please select the circle that most closely represents your feelings about movies in general. The stronger you feel an option describes your feelings about movies, the closer your answer should be to that option.

If your feelings are very closely related to one end of the scale, you should make your selection as follows:

Unimportant X: _ : _ : _ : _ : _ Important

OR

Unimportant _ : _ : _ : _ : X Important

If your feelings are quite closely related to one end of the scale (but not extremely), you should make your selection as follows:

Unimportant _ : X : _ : _ : _ : _ Important

OR

Unimportant _ : _ : _ : _ : X : _ Important

If your feelings are only slightly related (but not really neutral) to one end of the scale, you should make your selection as follows:

Unimportant _ : _ : X : _ : _ : _ Important

OR

Unimportant _ : _ : _ : X : _ : _ Important

Q8. In general, I think movies are...

	(-3)	(-2)	(-1)	(0)	(1)	(2)	(3)	
*Important (1)	☐	☐	☐	☐	☐	☐	☐	Unimportant
Of no concern to me (2)	☐	☐	☐	☐	☐	☐	☐	Of concern to me
Irrelevant (3)	☐	☐	☐	☐	☐	☐	☐	Relevant
*Something that means a lot to me (4)	☐	☐	☐	☐	☐	☐	☐	Something that means nothing to me
Useless (5)	☐	☐	☐	☐	☐	☐	☐	Useful
*Valuable (6)	☐	☐	☐	☐	☐	☐	☐	Worthless
Trivial (7)	☐	☐	☐	☐	☐	☐	☐	Fundamental
*Beneficial (8)	☐	☐	☐	☐	☐	☐	☐	Not beneficial
*Something that matters to me (9)	☐	☐	☐	☐	☐	☐	☐	Something that does not matter
Uninteresting (10)	☐	☐	☐	☐	☐	☐	☐	Interesting
*Significant (11)	☐	☐	☐	☐	☐	☐	☐	Insignificant
Vital (12)	☐	☐	☐	☐	☐	☐	☐	Superfluous
Boring (13)	☐	☐	☐	☐	☐	☐	☐	Interesting
Unexciting (14)	☐	☐	☐	☐	☐	☐	☐	Exciting
*Appealing (15)	☐	☐	☐	☐	☐	☐	☐	Unappealing
Mundane (16)	☐	☐	☐	☐	☐	☐	☐	Fascinating
*Essential (17)	☐	☐	☐	☐	☐	☐	☐	Nonessential
Undesirable (18)	☐	☐	☐	☐	☐	☐	☐	Desirable
*Wanted (19)	☐	☐	☐	☐	☐	☐	☐	Unwanted
Not needed (20)	☐	☐	☐	☐	☐	☐	☐	Needed

Q9. How many times have you visited a theater to see a film in the past 2 months?

[Select from dropdown list: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, More than 10]

Q10. How many times have you visited a theater to see a film in the past 12 months? [Select from dropdown list: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 or more]

Q11. What year were you born?

[Select from dropdown list: 2000, 1999, 1998, 1997, 1996, 1995, 1994, 1993, 1992, 1991, 1990, 1989, 1988, 1987, 1986, 1985, 1984, 1983, 1982, 1981, 1980, 1979, 1978, 1977, 1976, 1975, 1974, 1973, 1972, 1971, 1970, 1969, 1968, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1959, 1958, 1957, 1956, 1955, 1954, 1953, 1952, 1951, 1950, 1949 or before]

Q12. What is your sex?

- ☐ Male (1)
- ☐ Female (2)

Q13. What is your year in school?

- ☐ Freshman (1)
- ☐ Sophomore (2)
- ☐ Junior (3)
- ☐ Senior (4)
- ☐ Graduate Student (5)
- ☐ Other (6) _____

Q14. Are you completing this survey for extra credit?

- ☐ Yes (1)
- ☐ No (2)

[If yes, answer Q15 & Q16]

Q15. Please select your class.

- ☐ ADPR 3100 (Reichert) (2)
- ☐ ADPR 3580 (Reber) (3)

Q16. Please enter your UGA email address in the box below. This information will be used only to ensure you receive credit for your participation; it will not be linked to your survey responses.