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# Viral marketing: Motivations to forward online content $\stackrel{\scriptsize\Join}{\sim}$

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## ABSTRACT

Despite the increasing popularity of viral marketing, factors critical to such a new communication medium remain largely unknown. This paper examines one of the critical factors, namely Internet users' motivations to pass along online content. Conceptualizing the act of forwarding online content as a special case of a more general communication behavior, we identify four potential motivations: (1) the need to be part of a group, (2) the need to be individualistic, (3) the need to be altruistic, and (4) the need for personal growth. Using a survey of young adults, we examine the relationship between these motivations and the frequency of passing along online content. We also investigate if high trait curiosity can indirectly lead to more forwarding by increasing the amount of online content consumed. Results show that Internet users, who are more individualistic and/or more altruistic, tend to forward more online content than others.

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## 1. Introduction

The Internet is now the "new normal" way of life for many Americans to get their news, book travel reservations, do research for school or their job, check out the weather, and seek out romantic partners among other activities (Rainie, 2005). For those who consume entertainment, news and information online, recommendations from friends are important sources for that information. This new online environment is conducive to a new form of marketing communication commonly referred to as viral marketing. Viral marketing typically starts with the marketer creating some form of electronic content such as a video or a mini-site. the aim of which is usually brand-building. The URL (web address) for the electronic content is made available to Internet users, who after viewing the content will decide whether they want to pass the URL along to their friends. If the URL gets forwarded and the Internet users receiving it also keep passing the URL along, the electronic content has the potential to reach a large group of Internet users at an exponential rate (Watts and Peretti, 2007).

Despite the increasing shift of advertising spending to viral marketing (Knight, 2007), the factors critical to viral marketing effectiveness remain largely unknown to both marketing academics and practitioners (Godes et al., 2005). Among the many potential

critical factors, this study focuses on Internet users' motivation to forward electronic content (i.e., the URLs storing the content). Understanding Internet users' motivation to forward online content is crucial since the decision to pass the content along is completely voluntary - in other words, marketers do not pay Internet users to pass along electronic content. Electronic content that is "seeded" initially to Internet users who are more readily motivated to pass along content in general and/or if the particular content fits well with the Internet user's forwarding motivation, will more likely reach a large group of Internet users (i.e., become viral). For ease of exposition, we call hereafter the act of forwarding electronic content e-WOM and the Internet users, who are more ready to engage in e-WOM, e-mavens. Although Internet users may also spread electronic content by posting URLs in chat rooms or personal blogs in social networking sites, these actions are more similar to broadcasting to many audiences comprised of individuals who the senders may not know or intend to target. We restrict e-WOM to those forwarding actions through e-mail, instant messaging, or other communication media that are of high "addressability" in nature. We believe the scope of our e-WOM is most relevant to the current practice of viral marketing campaigns in which marketers intend to spread their messages as personal communications, rather than mass communications.

One may immediately see the parallel between e-mavens and market mavens, a notion introduced by Feick and Price (1987). Market mavens are people who constantly acquire and spread general marketplace information. E-mavens on the other hand are people who acquire and spread information via electronic platforms such as email (Phelps et al., 2004). In other words, market mavens are defined by the type of information that is acquired and spread (i.e., marketplace information) while e-mavens are defined by the channel (i.e., email and the Internet) through which information is acquired

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and spread. E-mavens are on the other hand, conceptually similar to the notion of Internet mavens (Belch et al., 2005), except that we include both email and the Internet. Although the market maven construct has been shown to act as a personal trait (e.g., Laroche et al., 2003), we define e-mavens here primarily by high frequency of forwarding online content and leave the potential to explore e-mavens as a personal trait for future research.

Not restricted to any specific type of information, we conceptualize e-WOM as a special case of a more general communication behavior, in which individuals communicate through e-mails or instant messaging to accomplish certain communication goals. Although not widely studied this way, the forwarding of electronic content can be viewed as part of a conversation and as a possible forum for interpersonal communication. We therefore develop our theoretical model of e-mavens' motivations based on the interpersonal communication literature and discuss their hypothesized effects on the action of forwarding electronic content as well as an action preceding forwarding, namely the consumption of electronic content. We then empirically test which of these motives are indeed operating.

## 2. Conceptual framework

## 2.1. Motivation to forward electronic content

Viewing e-WOM as a conversation between two sources implies a need to understand the process involved in the transmission of information from person to person. While a number of theories are proposed to explain why we engage in interpersonal communication, we adopt the conceptual framework proposed by Schutz (1966) as it provides a useful framework for integrating the various motivations that potentially underlie the forwarding of online content. Specifically, Schutz proposed a three dimensional theory of interpersonal behaviour which he called FIRO (Fundamental Interpersonal Relations Orientation). He postulated that people engage in interpersonal communication because they are motivated to express one or more of three interpersonal needs: inclusion (need to be part of a group/need for attention), affection (show appreciation and concern for others), and control (need to exert power in one's social environment).

Exactly how these motivations are specifically related to the forwarding of online content is not clear. Therefore, we examine various literatures to identify specific motivations related to the three dimensions of interpersonal communication in the online context. First, although the literature on word-of-mouth communication focuses on product-related information, the motivations that influence e-WOM should share some of the same characteristics. The second major area we review to identify pertinent motivations for the e-maven is the literature on Internet usage. Lastly, for reasons to be described in detail later, we focus on research that is applicable to college-aged students. In the next section, we use the FIRO framework to identify the key motives associated with the e-maven's propensity to engage in forwarding online content.

#### 2.1.1. Inclusion

According to FIRO theory, the interpersonal need for inclusion refers to the need to be recognized as participants in human interaction and some terms that connote the relation include "belong", "join", and "togetherness" (Schutz, 1966). However, an essential aspect of the concept of inclusion is the desire to be identifiable or different from other people (Schutz, 1966). This leads us to postulate two primary motives underlying the interpersonal need of inclusion — the need to belong and the need to be unique.

## 2.1.2. The need to be part of a group

According to the belongingness hypothesis, human beings possess "a need to form and maintain at least a minimum quantity of interpersonal relationships" (Baumeister and Leary, 1995:499). Phelps et al. (2004) examined consumers' motivations to pass along email and found that the most common motivation mentioned by respondents was the desire to connect and share with others. Flanagin and Metzger (2001) studied individuals' motivations for using a number of different media and report that similar to interpersonal (face-to-face) communication, electronic mail was used heavily to fulfill social bonding and relationship maintenance needs. As more people rely on the Internet as a means of communication we surmise that young adults will need to share their media experiences particularly if they anticipate future discussions. Therefore we predict:

**H1.** The need to belong will positively affect the forwarding of online content.

#### 2.1.3. The need to be different

Self-image motivates WOM communication. For example, a recent study by Chung and Darke (2006) found that individuals were more likely to engage in WOM for products closely aligned to one's self-image – that is, products that tell others about who you are. This is not the only study to suggest that impression management goals are important drivers of WOM communication. Sundaram, Mitra and Webster (1998) explored consumers' motivations to engage in WOM and reported that self-enhancement was an important motivator for engaging in positive WOM – approximately 20 percent of their respondents had initiated WOM as a means of enhancing status. Similarly, Dichter's (1966) research revealed that individuals can construct or assert their sense of self by using WOM to gain attention and connote status.

Vignoles, Chryssochoou and Breakwell (2000) suggest that the motivation to see oneself as distinctive is a pervasive human motivation. Individuation is defined as the willingness to stand out or be different from others and studies show that people who are high in public individuation are more willing to voice their opinions and stand out in a community (Maslach et al., 1985). Chan and Misra (1990:54) introduced the concept of individuation to the opinion leadership literature and proposed that the "act of disseminating information through word-of-mouth communication makes opinion leaders stand out among their group, makes them "different" than the other members." The key point here is that the act of forwarding online content to others in the same network allows the e-maven to differentiate him or herself. This leads us to our second hypothesis.

H2. Public individuation positively affects online forwarding.

## 2.1.4. Affection - the need to be altruistic

Affection is defined as the need to maintain a satisfactory relationship, leading individuals to engage in behaviors related to intimacy, warmth and emotional involvement (Schutz, 1966). Since people driven by the need for affection desire relationships that are close and personal, we posit that this need is closely related to the concept of altruism or concern for others (Price et al., 1995). We often consider altruistic acts as selfless, or in other words, actions that are based on love and affection. We propose that in the context of forwarding online content, altruistic motivations may be the most relevant indicator of the need for affection. For example, Dichter (1966) proposed that some people share information with others as a means of expressing love or friendship. More recently, Price and her colleagues found that concern for the welfare of others (altruism) was one of the key antecedents of marketplace helping behaviour. Evidence from the WOM literature provides support for the premise that consumers are often driven by altruistic motives both in online (Phelps et al., 2004) and offline environments (Sundaram et al., 1998). These findings were substantiated recently by both practitioner (Keller Fay, 2007) and academic research (Hennig-Thurau et al., 2004) examining consumer motivations to publish their experiences on online forums. Based on our review of the literature we propose that:

H3. Altruism positively affects the online forwarding of information.

## 2.1.5. Control – the need for personal growth

The interpersonal need for control relates to feelings of competence, achievement, influence, and accomplishment (Schutz, 1966). People high in this need not only want to make a difference in their social environment, they also want to have some say over how it happens (Schutz, 1966). College is a time of growth for many young adults and there are many aspects of life they need to control, such as experimenting with different roles and new relationships (Robitschek, 1998). More specifically, many college-aged students are focused on managing their future careers and may engage in the forwarding of electronic content as a strategic component of career development. For example, a recent study of US college students found that almost half of students surveyed agreed that email enables them to express ideas to professors that they would not have in class (Jones, 2002). Forwarding information to professors is one way that students are able to initiate a conversation with an individual who may provide him or her with career opportunities (e.g., research/teaching assistant positions). Related evidence comes from a study by Whiting and de Janasz (2004) in which they report that student protégées were able to successfully use e-mail for networking, building and nurturing business relationships to aid them in future personal and career success. Based on the aforementioned literature we suggest that forwarding online information may provide the sender with the ability to develop independence and leadership abilities. Robitschek (1998:184) defined personal growth initiative as "active, intentional engagement in the process of personal growth." The author reported that college-aged students had higher average scores compared to midlife adults possibly because this group is at a time of inherent conscious growth. Therefore the e-maven may be motivated to forward information as a means of developing knowledge or expertise and will be motivated by a sense of personal growth. This leads us to hypothesize that:

**H4.** Personal growth will be positively associated with online forwarding.

#### 2.2. Consumption of electronic content

Before an individual can share an interesting story, video or idea, he or she must locate the information on the Internet. Intuitively, one would expect that the more time an individual spends online, the more likely he or she will forward information, and a number of findings support this premise. For example, Sun et al. (2006) found that Internet usage was significantly related to forwarding and chatting and suggested that familiarity with the Internet is a prerequisite for online opinion leaders. Similarly, the more hours a young adult spends online the more likely he or she will be perceived as an Internet maven (Belch, Krentler, and Willis-Flurry, 2005). Therefore, we suggest that an important antecedent of online forwarding is the consumption of electronic content from mainstream media like newspaper websites and user-generated content websites like YouTube. This leads to the following hypothesis:

**H5.** The consumption of online content will positively affect forwarding behavior.

## 2.2.1. Motivation to consume electronic content

Research shows that people who are open to new experiences and tend to experiment with new products are more likely to be opinion leaders (e.g., Summers, 1970; Sun et al., 2006). Curiosity is defined as the desire to know or learn, and research shows that those with higher trait curiosity are more likely to allocate attention to novel and challenging stimuli (Kashdan et al., 2004). With this in mind, we believe that people with high trait curiosity enjoy the experience of learning and therefore are more likely to consume online content. This leads us to hypothesize that:

H6. Curiosity will positively affect the consumption of online content.

#### 3. Research methodology

#### 3.1. Research design and sample selection

This study focuses on the Internet communication of college-aged adults for a variety of reasons. First, although Internet adoption rates have increased in all demographic groups, usage still varies across age groups with the highest penetration (88%) among young adults aged 18 to 29 (Rainie, 2005). Second, young adults have grown up with this technology and the distinctions between the online and offline world are often blurred (Rainie, 2006), which suggests that Internet communication is a way of life for this group. From a behavioral perspective, the first two reasons suggest that young adults are more likely to use the Internet for sharing information with their family and friends. Finally, the third reason for focusing on college-aged adults relates to the motivations associated with the forwarding of online information. Life position (e.g., physical health, life satisfaction, and economic security) has been shown to influence the motivations for interpersonal communication (Rubin and Rubin, 1992), leading us to posit that the important aspect a young adult would want to control in terms of social or psychological dimensions would not necessarily be the same as the aspects older adults would consider important. For the aforementioned reasons we believe this is an appropriate group to examine the relationship between psychological constructs and e-WOM.

We administered a survey to undergraduate students enrolled in marketing courses at a university located in a major metropolitan area. Participants were informed that the purpose of the project was to develop an understanding of the factors related to how people use the Internet as a communication tool. Data were collected by sending 586 participants a link to an online survey which took approximately 30 min to complete. Removal of 4 subjects owing to missing data resulted in a usable sample of 582 subjects. The final sample was comprised of 270 males (46%) and 312 females (54%). The ages of the subjects ranged from 19 to 41 years of age, with a mean of 21.5 (SD = 2.4). Participants received extra credit for participation.

## 3.2. Measures

#### 3.2.1. Inclusion – need to belong

To measure an individual's need to belong we used the 10-item Need to Belong scale (NTB) developed by Leary, Kelly, Cottrell, and Schreindorfer (2001). Examples of items of this scale are "I want other people to accept me" and "My feelings are easily hurt when I feel that others do not accept me." Response categories ranged from 1 (not at all characteristic of me) to 5 (extremely characteristic of me). Cronbach's alpha for the scale was .75 which is comparable to other research using the scale (De Cremer and Leonardelli 2003,  $\alpha$ =.82 and De Cremer, 2003,  $\alpha$ =.73).

#### 3.2.2. Inclusion - individuation

The individuation scale (Maslach et al., 1985) measures the extent to which an individual is willing to stand out in a crowd. The scale consists of 12 Likert-type questions and is rated on a 5-point scale, from 1 = not at all willing to do this, to 5 = very much willing to do this. Examples of scale items include "give a lecture to a large audience" and "raise your hand to ask a question in a meeting or lecture." Reliability and validity of the scale were established in Maslach et al. (1985) and in subsequent articles (e.g., Chan and Misra, 1990) and Cronbach's alpha for this scale in our study was .88.

## 3.2.3. Control – personal growth initiative

The Personal Growth Initiative Scale (PGIS: Robitschek, 1998) is a self-report instrument that yields a single scale score for personal growth initiative. Instructions ask participants to report their level of agreement with 9 statements using a 6-point Likert scale ranging from

0 = definitely disagree to 5 = definitely agree. Robitschek (1998) reported internal consistency estimates ranging from .78 to .90 in samples of college students and adults in mid-life transition. Examples of this scale are "I have a good sense of where I am headed in my life" and "I can choose the role that I want to have in a group" ( $\alpha = .91$ ).

## 3.2.4. Affection – altruism

In this study we measured altruism with the scale used by Price, Feick and Guskey (1995) in their study of helping behavior in the marketplace. Respondents are required to rate how important five statements are to them on a 7-point scale ranging from (1 = veryimportant to 7 = very unimportant). Examples of the statements include "to help other people" and "to share what you have." Cronbach's alpha for the scale was .90 which is comparable to the alpha of .84 reported by Price et al. (1995).

#### 3.2.5. Curiosity

Using a 7-point Likert scale, participants completed the 7-item Curiosity and Exploration Inventory (CEI; Kashdan et al., 2004); rated from 1 (strongly disagree) to 7 (strongly agree). This scale assesses interest in exploration (e.g., I frequently find myself looking for new opportunities to grow as a person) and absorption in activities (e.g., My friends would describe me as someone who is "extremely intense" when in the middle of doing something;  $\alpha = .76$ ).

#### 3.2.6. Content forwarding

Respondents were asked to estimate how frequently they forward information in a typical week. When being forwarded, electronic content can be either directly attached to electronic communication channels like emails/instant messaging or be stored at specific URLs, which are shown in the body of electronic communications. Respondents chose one of the six frequency brackets: 1) never, 2) 1–2 times, 3) 3–5 times, 4) 6–10 times, 5) 11–20 times, 6) more than 20 times. The midpoints of individual frequency brackets are used in the analysis. The mean is 2.62 times and the standard deviation is 4.44 times.

## 3.2.7. Content consumption

Respondents were asked to report about how much time they spend on various specific online activities in a typical week. We then summated the time on two specific online activities: 1) reading web articles or watching videos in mainstream media like Yahoo news, and 2) reading web articles or watching videos in other sites like YouTube and Bloggers. The mean is 6.63 hours and the standard deviation is 8.28 h.

#### 3.3. Results

## 3.3.1. Measurement model

We used the two-step approach to structural equation modeling (SEM) which calls for the evaluation of the fit of the measurement model using confirmatory factor analysis (CFA) prior to assessing the fit of the structural model (Schumacker and Lomax, 2004). The fit measure included a  $\chi^2$ /degrees of freedom ratio of 2.56 ( $\chi^2 = 2176.18$ , df = 850) which is below the recommended cutoff of 3.0 (Kline 1998). Similarly, based on the recommendations of Hu and Bentler (1998) we meet the criteria for an acceptable model fit: comparative fit index (CFI) = .95, non-normed fit index (NNFI) = .95, and standardized root mean residual (RMR) = . 08. The construct reliabilities ranged from .75 to .91 confirming internal consistencies of the measures. Overall, the measurement model was supported by the results of CFA.

## 3.3.2. Evaluating the structural model using SEM

The research hypotheses were examined using structural equation modeling (SEM) which allows all paths to be examined simultaneously. The conceptual model (refer to Fig. 1) was tested using LISREL 8.80 (Jöreskog and Sörbom). The model was tested with the maximum likelihood method of parameter estimation and the covariance matrix was used as input. Although the chi-square value was significant (p <.001), the structural model provided a satisfactory fit to the data (Hu and Bentler, 1998). The ratio of chi-square to degrees of freedom is 2.41( $\chi^2$  = 2240.70, df = 931), comparative fit index (CFI) = .95, non-normed fit index (NNFI) = .95, and standardized root mean residual (RMR) =. 06. However, not all structural paths between constructs were significant.

We also examined the robustness of our results to alternative formulations of the two behavioral measures: content forwarding and content consumption. Specifically, to capture the non-linearity of these measures (especially since the response categories of the forwarding measure are not equidistant), we took the square root of the measures. We also tried using the lower bounds, rather than the midpoints of individual response categories when formulating the forwarding behavior measure. The model results of these alternative specifications were the same (directionally and significance testing), demonstrating the robustness of the results.

## 3.3.3. Results of hypothesis testing

The results of the structural equation model showing the significant paths (p < .05) in solid lines are presented in Fig. 1.

Table 1 shows individual parameter estimates, standard errors and *t*-values. Hypotheses H1 through H4 examined the direct effects of the key motivations associated with FIRO theory on forwarding online content. The individual path coefficients for the need to belong, individuation, altruism, and personal growth initiative were examined and we found only partial support for this set of hypotheses. As expected, the results showed that the interpersonal need for inclusion and affection were key motivators for engaging in online WOM communication (forwarding online information). The only exception was the control motivation, which although significant did not positively affect the online forwarding of information. While we had posited that inclusion was comprised of two dimensions – the need to belong and public individuation – only individuation or the need to be unique,

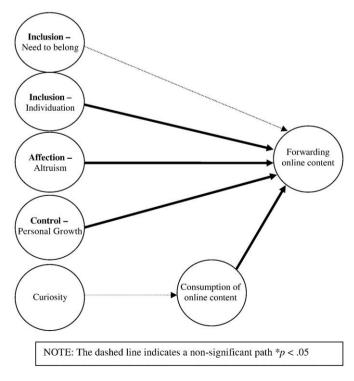


Fig. 1. Estimated structural model.

Path estimates,	standard	errors,	and	t-values	of the r	nodel.

Hypothesis	Causal path	Parameter estimates	Standard error	<i>t</i> -value
H1	Need to belong $\Rightarrow$ forwarding	-0.356	0.386	-0.921
H2	Individuation $\Rightarrow$ forwarding	0.723	0.261	2.767
H3	Altruism $\Rightarrow$ forwarding	0.565	0.203	2.780
H4	Personal growth $\Rightarrow$ forwarding	-0.866	0.321	-2.701
H5	Consumption $\Rightarrow$ forwarding	0.089	0.022	4.138
H6	Curiosity $\Rightarrow$ consumption	0.084	0.446	0.189

significantly influenced e-WOM. For the affective dimension, altruism was a positive predictor of e-WOM which is consistent with previous research (Phelps et al., 2004; Sundaram et al., 1998). The results of our research suggest that the amount of online content that is forwarded is affected by certain interpersonal motivations.

In support of H5, the path estimate between amount of online content consumed and the online forwarding of information was positive and significant. Specifically, this relationship implies that individuals who actively seek information on the Internet are more likely to engage in e-WOM which is consistent with findings that opinion leaders expend effort to acquire and comprehend important information. However, our LISREL analysis did not support H6 which stated that individuals with a high sense of curiosity would have a greater tendency to consume online content. This result fails to support our speculation that individuals who enjoy the experience of learning are more likely to spend time consuming online content.

## 4. General discussion

The Internet allows people all over the world to not only communicate with each other but also to form and maintain relationships. Using FIRO theory (Schutz, 1966) from the interpersonal communication literature as a framework for the study, we test whether the salient motivators related to interpersonal communication are relevant in the context of e-WOM. The key findings reported here are that two of the three key dimensions of FIRO theory are significant predictors of forwarding behavior (Inclusion and Affection), and that an individual's consumption of online content influences e-WOM. Our findings not only enhance our understanding of a more general e-communication behavior, that is the findings are not specifically product-related, but also have important marketing implications.

The results of our analysis reveal some expected and some unexpected findings. First, of the two motivations underlying the concept of inclusion, only individuation was positively related to the forwarding of online content. This finding is consistent with the theorizing of Chan and Misra (1990) who suggest that opinion leaders are individuals willing to publicly individuate themselves by sharing their opinions with others. Similarly, we find the e-maven is willing to disseminate online content with others as a way of showing his/her uniqueness. By their willingness to stand out from the crowd, the e-maven may be judged by others as more influential (e.g., Taylor et al., 1979).

Although the extant literature reports that the Internet is used both as a means of staying in touch with others and developing new relationships (e.g., Flanagin and Metzger, 2001), our measure of the motivation of the need to belong did not significantly influence the forwarding of online content. We do not mean to suggest that the Internet is not used by this group of consumers as a means of meeting this need. Individuals are able to connect with others on the Internet using different forms of e-communication such as Usenet groups and social networking sites such as Facebook. It is possible that social networking sites may provide the user with better opportunities to fulfill the need to belong compared to the forwarding of online content via email. Our results are consistent with a study of online WOM in the context of music-related communication in which feelings about getting connected to others online did not account for online leadership (Sun et al., 2006).

Next, this study identified a positive relationship between altruism and e-WOM. This finding is consistent with the research on the psychological influences on the market maven. For example, Feick and Price (1987) find that the construct of market maven mediates the relationship between altruism and everyday helping behavior in the marketplace.

FIRO theory has been used by researchers investigating the dynamics of human social behavior. Since we conceptualized the forwarding of online content as essentially a communication phenomenon we hypothesized that as part of a normal conversation individuals would achieve the three major interpersonal needs outlined by FIRO theory. In contrast we found a negative relationship between our measure of the interpersonal need for control and e-WOM. Many different measures are available to operationalize control - one possible explanation for our findings may be our choice of measure. Alternatively, the need for control in an interpersonal communication context might require some feedback mechanism which is not readily available when an individual forwards online content. This need for feedback, or at least the opportunity to compare expected outcomes to received outcomes, may be particularly relevant for individuals who are high in personal growth initiative (PGI). These individuals would be highly motivated to control their environment, which would explain our findings that individuals who are high in PGI are less likely to engage in e-WOM since they may participate in other activities as a means to achieve personal growth or accumulate social capital. In other words, compared to the inclusion and affection motives, e-WOM is not as well aligned with the control motive, at least in our operationalization of the motive, as other communication media/channels such as face-to-face meetings.

Since the amount of time consuming online content was a significant predictor of e-WOM it is important to understand what motivates users to spend time online consuming information. Richard and Chandra (2005) show that individuals high in OSL (optimum stimulation level) are more likely to increase online exploratory behavior. Similarly, we hypothesized that individuals high in trait curiosity would spend more time online consuming content. One possible explanation for our lack of support for this hypothesis is that trait curiosity is linked to learning and learning is an information motive. Research shows that individuals are motivated to surf the Internet for additional reasons including entertainment and socialization (e.g., Richard, 2005; Richard and Chandra, 2005). Therefore, future studies should consider the motivations associated with general (entertainment) versus purposive (information) browsing behavior and their relationship with e-WOM (Richard, 2005).

In terms of theoretical contribution made by this research, firstly it enables us to define the psychographic profile of the young, collegeaged e-maven. A major finding of the study is that the interpersonal behaviour of the e-maven is characterized by the individualistic aspect of the need for inclusion and the altruistic component of the need for affection. Greater frequency online may allow individuals to achieve these two important needs thereby implying a greater dependency on this medium to meet these needs in the future. The results also suggest that individuals who spend more time online forward more information to others in their social network.

#### 4.1. Managerial implications

Previous research has shown the value to marketers of identifying market mavens (e.g., Feick and Price, 1987; Laroche et al., 2003) and as greater numbers of consumers join the online world, e-WOM communication should play an increasingly important role in consumers' decisions. A goal of this research was to provide practitioners with insight into the important motivations associated with the forwarding of online content. Given the amount of clutter on the Internet a successful viral marketing message must not only attract attention, it must also give the viewer a reason to want to share this information

with others. A viral marketing campaign has a greater chance of success if the marketer is able to develop marketing communication strategies that resonate with the target group - in other words, appeals to the key motivations for sharing information. We find that the e-maven is not only motivated to forward information to others in his or her social network as a way of standing out from the crowd, but also as a way of helping others. Therefore, we suggest that marketers should consider appeals to both these key motivations. Although one might consider the need to be altruistic and the need for individuation to be conflicting, research shows that individuals will engage in activities that are costly as a way of signaling to others useful information about themselves (Griskevicius et al., 2007). Interestingly, this explanation suggests that while e-mavens may hope their behavior is interpreted by the sender as altruistic, what they are really trying to do is to signal their distinctiveness and establish their identity.

#### 4.2. Limitations and future research

The implications drawn from this research should be considered in light of several constraints. First the generalizability of the study is limited by the use of a convenience sample of college-aged students. While the use of student samples can impede concluding how nonstudent consumers will respond, given the primary objective of this research was to provide theoretical insights into the psychology of the e-maven, we believe the use of a student sample is justified. Furthermore, as discussed previously, college-aged students tend to be heavy users of the Internet and thus comprise an important segment to marketers. Second, our results are limited to the particular scales used. Since a number of different scales are available that can potentially tap the same constructs used in our study, it is possible that the use of different scales might impact the results.

Since research shows that WOM has greater impact on product decisions compared to more traditional marketing communications such as advertising (Gilly et al., 1998; Herr et al., 1991), a future research direction is to shift the focus to the receivers of the forwarded content. Specifically, a theoretically interesting while managerially relevant question is whether receivers would respond more favorably to a message received from a friend than to the same message received from traditional media. In this study we did not distinguish between different sources of online content and given that source credibility is a major factor influencing WOM behavior (Richins, 1983), future research should analyze the impact of source credibility on forwarding of online content. For example, a recent study of European Internet users found that blogs are more trusted compared to both traditional television advertising and email marketing (Craigie, 2006). However, the source credibility effect is potentially complex in viral marketing context. Unlike traditional WOM, e-WOM allows non-experts to forward electronic contents to an expert. In fact, if an individual knows his friend is interested in a certain area, say fashion, it is likely that he will forward fashion tips to his friend, even though he does not know much about fashion. Under similar scenarios, it is unclear if the receiver of these tips would react more favorably to the information from novice sources than if the information was received from traditional marketing communication channels.

Another future research direction is to examine the characteristics of online content. Specifically, not all electronic content is created equal. Some content is more "viral" than other content. It is important to identify the characteristics of online content which are more readily forwarded by Internet users to others.

Despite these limitations in this research, the present study sheds light on the interpersonal psychological profile of the e-maven. We discuss how an in-depth understanding of the e-maven and his or her psychological disposition may be critical to marketers wishing to design viral communications. Lastly, the study has also brought attention to the need to investigate the differences between communication in the offline and online worlds.

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