Influence of personality on travel-related consumer-generated media creation

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A B S T R A C T
While a growing number of travelers engages in consumer-generated media (CGM) use and creation, the gap between the number of users and the number of actual content creators remains large. It is important to find out what drives this minority of creators and what makes them different from those who only use CGM. Personality has been found to be a particularly influential trait that predicts behavior. The influence of personality on travel CGM creation was investigated and the results indicate that travelers' personality traits significantly influence perceived barriers to content creation, motivations to engage in CGM creation, and specific creation behaviors. Contributions and implications are discussed from both a theoretical and a practical perspective.

1. Introduction

The emergence of Web 2.0 has fundamentally changed how travelers use, exchange and also create travel information (O’Connor, 2008). With the advent of Web 2.0 technologies, travelers today can actively collaborate with peers in producing, consuming and diffusing travel information through the Internet (Sigala, 2008). These consumer-generated media (CGM) play an important role in the context of travel decision-making (Litvin, Goldsmith, & Pan, 2008; Pan, MacLaurin, & Crotts, 2007; Yoo & Gretzel, 2008a), with a large percentage of consumers consulting CGM in the course of planning trips (eMarketer, 2008). Indeed, a recent study reported that more than 80% of leisure travel buyers were influenced by various types of travel-related CGM including videos, reviews and blogs in the context of travel purchase decisions (PhoCusWright, 2008). One of the most prominent forms of travel-related CGM are online reviews, which have been found to be highly trusted (Yoo, Lee, Gretzel, & Fesenmaier, 2009) and to provide travel decision-makers with a variety of benefits, such as feelings of active involvement in and satisfaction with the trip planning process, more concrete expectations, and also greater confidence in decisions made (Gretzel & Yoo, 2008).

As growing numbers of travelers engage in CGM use and creation, several important issues regarding travel CGM have been investigated. For instance, researchers have examined what motivates travelers to engage in CGM creation (Chung & Buhaldis, 2008; Yoo & Gretzel, 2008a), how travelers use and are influenced by travel-related CGM (Arsal, Backman, & Baldwin, 2008; Gretzel, Lee, Tussyadiah, & Fesenmaier, 2009; Gretzel & Yoo, 2008), how likely travelers are to be exposed to CGM when searching for travel information online (Xiang & Gretzel, 2009), and also how they evaluate the credibility of online consumer-generated contents and form trust in CGM (Yoo, Lee, & Gretzel, 2007; Yoo et al., 2009). In addition, studies have been conducted regarding deception in the context of travel-related CGM (O’Connor, 2008) and travelers’ ability to detect deceptive contents (Yoo & Gretzel, 2008a). Recent empirical studies regarding travel CGM also found linkages between travelers’ personal characteristics and CGM creation and use (e.g. Gretzel, Kang, & Lee, 2008; Gretzel et al., 2009; Lee, Yoo, & Gretzel, 2009; Yoo & Gretzel, 2008a, 2008b, 2009b), indicating that differences exist in terms of travel CGM perceptions, usage patterns and extent of CGM creation. Differences investigated in these studies were based on gender, age, membership in a generational cohort, income level, race, nationality and culture. One of the factors that has not been investigated so far as a driver of CGM creation is personality.

While various personal characteristics have been examined in consumer behavior research, personality has been found to be a particularly influential trait that predicts behavior over time and across situations (Woszczynski, Roth, & Segars, 2002). A number of recent studies suggest that personality is also an important predictor of different online behaviors (e.g. Acar & Polonsky, 2007; Tuten & Bosnjak, 2001). Considering that personality has been found to be an important factor influencing a wide variety of human behaviors and choices (Landers & Lounsbury, 2006), it is necessary to examine its impacts in the context of CGM.

One of the puzzling phenomena with regards to CGM is the inequality in numbers of users and actual creators, with the majority of CGM being created by a rather small number of individuals.
the important opportunities to communicate

(durations: 595.3x793.7)

Travel blogs in particular have received a lot

of their lives and actively engage in various activities including

Tourism researchers are online travel reviews (O’Connor,

Vermeulen & Seegers, 2009; Yoo & Gretzel, 2008a). Travel

reviews include product ratings and short descriptions, and their cre-

ation is often directly encouraged by travel marketers. In contrast

to other forms of CGM, travel reviews tend to be very structured

and do not serve the purpose of documenting an experience for

oneself but rather are directed at others. Videos have so far

received very little attention in the literature as a medium to portray

tourism experiences (Tussyadiah & Fesenmaier, 2009). Podcasting

in the context of travel has also not been discussed extensively

in academic papers, with the exception being Xie and Liew

(2008). Some recent studies have investigated the increasing use

of travel-related CGM and suggest that social media play an impor-
tant role not only for consumers but also in tourism marketing

(Carrera et al., 2008; Xiang & Gretzel, 2009). In order to design bet-
ter CGM platforms and most efficiently use CGM for marketing

purposes, system designers and tourism marketers need to better

understand the importance of how and why consumers engage in CGM

and what specific activities constitute CGM creation behavior.

2. Theoretical background

2.1. Role and importance of CGM in tourism

Word-of-mouth has traditionally played a significant role as an

information source in travel and tourism (Crotts, 1999; Fodness &

Murray, 1997; Hwang, Gretzel, Xiang, & Fesenmaier, 2006; Kotler,

Bowen, & Maken, 2006; Murphy, Moscardo, & Benckendorff, 2007;

Snepenger & Snepenger, 1993). CGM are a new form of word-of-

mouth that serve informational needs by offering non-commercial,
detailed, experiential and up-to-date information with an access

beyond the boundaries of one’s immediate social circle. With these

advantages, travel narratives and comments generated by travelers

in the form of CGM now constitute a large part of the online tour-

ism domain (Sigala, 2008; Xiang & Gretzel, 2009; Xiang, Wöber,

& Fesenmaier, 2008), and likely influence the experiences of those

who tell them as well as those who consume them (Gretzel et al.,

2009). Since travel products lack the features of pre-trial and frequent repeat purchases, this first-hand knowledge communi-
cicated by similar others who do not have commercial interests is
seen as especially valuable (Buharis, 2003; Ricci & Wietmsma, 2006)
and also influential form of travel information (Litvin et al., 2008;
Pan et al., 2007).

Travel websites that provide CGM have become the central hub

for travelers to plan and book their trips (Eyefortravel, 2008).
The importance of travel-related CGM sites becomes obvious when
looking at online traffic flows. The travel website that drew the

largest share of visitor traffic in June 2008 was TripAdvisor, the

leading online travel community site (Grau, 2008). With the major-

ity of travelers now planning their travel online (TIA, 2008), more

Internet users become accustomed to using CGM. As more CGM

is being created every second of every day (Technorati, 2008; Verna,

2009), it is expected that CGM will continuously grow in impor-
tance with respect to travel.

While various types of CGM are currently created and used by

travelers, online travel communities and discussion forums have

the longest tradition as online venues for travelers to engage in travel

storytelling, to find or share information, and also to support

travel planning (Arsal et al., 2008; Chung & Buhalis, 2008; Kim,

Lee, & Hiemstra, 2004; Wang & Fesenmaier, 2004a; Wang, Yu, &

Fesenmaier, 2001). Travel blogs in particular have received a lot of

attention in the context of travel research (Douglas & Mills,

2006; Karlsson, 2006; Lee et al., 2009; Lin & Huang, 2000; Mack,

Blose, & Pan, 2008; Pan et al., 2007; Pudliner, 2007; Schmallegger

& Carson, 2008; Thevenot, 2007; Tussyadiah & Fesenmaier, 2008;

Wenger, 2008). Since travel blogs are a type of CGM that most clo-

sely resembles traditional travel journals (Gretzel et al., 2009), they

have been identified as important opportunities to communicate

information outside of the dominant narratives of tourism market-
ers (Pudliner, 2007). Another form of CGM increasingly discussed

by tourism researchers are online travel reviews (O’Connor,

2008; Vermeulen & Seegers, 2009; Yoo & Gretzel, 2008a). Travel

reviews include product ratings and short descriptions, and their cre-

ation is often directly encouraged by travel marketers. In contrast

to other forms of CGM, travel reviews tend to be very structured

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(Carrera et al., 2008; Xiang & Gretzel, 2009). In order to design bet-
ter CGM platforms and most efficiently use CGM for marketing

purposes, system designers and tourism marketers need to better

understand how and why consumers engage in CGM and what

specific activities constitute CGM creation behavior.

According to Shao (2009), individuals deal with CGM in three

ways: consuming, participating and producing. Consuming refers to

behaviors like watching, reading and viewing, but never particip-

ating. Participating means user-to-user interaction and user-to-

content interaction, such as ranking the content and posting com-

ments, but does not include actual production. Producing encom-
passes online contents creation as well as publication including

text, images, audio and video. Shao suggested that these three

activities may represent a path of gradual involvement with

CGM. People begin their relationship with CGM as consumers or

lurkers but gradually evolve to the next stage of participating

and then finally come to produce CGM contents. Similarly, a num-

ber of previous studies (Nonnecke & Preece, 2001; Tedjamulia, Ols-

en, Dean, & Albrecht, 2005; Van Dijck, 2009) understood CGM

behaviors in terms of the level of participation. These studies also

suggested three different types of CGM engagement. The most pre-

valent way of involvement is browsing and consuming CGM con-
tents but not contributing. The second type of involvement is mere content contribution like asking specific questions when

CGM users do not find the specific type of information they want.
The individuals who engage in these two types of CGM use are
called “lurkers” (Nonnecke & Preece, 2001). The final type of

engagement is active participation including responding to other

individuals’ questions, engaging in social interactions and making

content contributions. Individuals who engage in CGM at this level
can be referred to as CGM creators.

Focusing on travel-related CGM, Wang et al. (2001) explained

tions of participation in online tourist communities in terms of

need fulfillment. They posited that tourists participate in online

tourist communities motivated by functional, social and psycho-

logical needs. To satisfy functional needs, online travelers gather,

seek and consume information. To meet their social needs, they

interact with other community members and build relationships.

To cater to psychological needs, they make the community a part

of their lives and actively engage in various activities including

relationship building and creative forms of communication.

What constitutes an active contribution might differ somewhat

by the type of CGM. For example, building relationships can be

considered one type of contributing behavior in online community

or social networking contexts (Tedjamulia et al., 2005) but it may

not be a possible contribution in other types of CGM such as review

sites or wikis. For this study, CGM creation was defined as actual

travel-related content contributions online including posting travel
reviews, contributing to travel-related wikis, writing travel-related blogs or posting photos/videos, etc.

2.3. Motivations and barriers related to CGM creation

A significant advantage of Web 2.0 technologies is that they provide individuals with the opportunity to no longer be passive consumers of information but rather active ‘prosumers’ (producers and consumers; Toffler, 1970) who take an important role in online content creation. Online contents created by these prosumers attract more than 69 million users and generate more than $450 million in advertising revenue (Verna, 2007). Travel companies are increasingly trying to engage consumers in CGM creation, as it allows them to enhance customer value and, at the same time, exploit customer intelligence (Sigala, 2009).

Despite of the growing popularity of CGM, existing research indicates that only a small fraction of online users creates contents online (Daugherty, Eastin, & Bright, 2008; iProspect, 2007; Nonnecke & Preece, 1999; Preece, Nonnecke, & Andrews, 2004) and that a sizable proportion of online users just consume information posted by others (Connolly & Thorn, 1990; eMarketer, 2007; iProspect, 2007; Nonnecke & Preece, 1999; Preece et al., 2004). Since encouraging participation is one of the greatest challenges for any online community provider (Bishop, 2007), and since market- ers increasingly depend on market intelligence derived from online opinions about their products, it is important to understand what drives and also prevents online content creation.

Existing literature has identified a number of important motivations to contribute contents online (e.g. Daugherty et al., 2008; Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004; Kim & Schrier, 2000). Hennig-Thurau and colleagues (2004) suggested eight motivations to contribute to an online peer-to-peer community. (1) platform assistance; (2) concern for other consumers; (3) extrinsic/positive self-enhancement; (4) social benefits; (5) economic incentives; (6) helping the company; and, (7) advice seeking. In addition, motives related to community citizenship (Ardichvili, Page, & Wentling, 2003; Bonacich & Schneider, 1992; Osterloh & Frey, 2000), reciprocity (Kellock, 1998; Wasko & Faraj, 2000), moral obligation (Constant, Sproull, & Kiesler, 1996), and self-interest (Wasko & Faraj, 2000) have been suggested as reasons why people contribute contents to online communities. Daugherty et al. (2008) identified ego-defensive and social motivations as important for content creation and also found significant differences between active CGM contributors and mere users in terms of what types of CGM they use. In the context of travel CGM, Wang and Fesenmaier (2004a, 2004b) examined motivations for participation in travel communities, including general participation as well as active contributions, and found a diverse array of motivations, ranging from psychological to social factors. Confirming Wang and Fesenmaier’s assumptions, a study by Chung and Buhalits (2008) suggests that travelers are motivated to participate in online communities for information acquisition, socio-psychological and hedonic benefits. Yoo and Gretzel (2008a) studied motivations to contribute travel reviews with a sample of TripAdvisor members and reported that TripAdvisor contributors were mostly driven by intrinsic and positive motives such as enjoyment, positive self-enhancement, concerns for other consumers or wanting to help the company rather than vengeance and the need to vent.

Less attention has been paid to barriers faced in the context of online content creation. Preece et al. (2004) found people engaged in lurking rather than posting because they felt they did not need to post, need to know more about the group before participating, or they thought that they were being helpful by not posting. In-depth interviews with ten lurkers by Nonnecke and Preece (2001) identified 79 reasons for lurking. Most frequently mentioned reasons for lurking included a preference to remain anonymous due to privacy concerns, time & work related constraints and shyness over public posting. Ardichvili and colleagues (2003) also conducted interviews to find barriers to participation in online knowledge-sharing communities. Their findings showed that many people shy away from knowledge sharing because they are not sure if the knowl- edge they have is important, accurate or relevant to specific topics and are thus concerned about misleading the community members or receiving criticism. Similarly, Mason (1999) suggested people lurk in virtual environments due to feelings of incompetence. The perceptions of no need to post, fear of persistence of message (Nonnecke, 2000) and feeling uncomfortable with the tone of the community (Katz, 1998) were also found to make people lurk instead of engaging in content creation. In terms of barriers to travel-related CGM creation, a study by Gretzel, Yoo, and Purifoy (2007) found that having time constraints was the most prominent reason for not contributing, followed by no interest, lack of confidence in writing, and being lazy. Chalkiti and Sigala (2008) also found that time was an important barrier for Greek tourism professionals to contribute to an online peer-to-peer community.

2.4. Individual differences in CGM use and creation

Existing studies report differences in CGM activity related to specific types of CGM used (Prescott, 2006; Daugherty et al., 2008), differences in active vs. passive use (Yoo & Gretzel, 2008b) and also differences in terms of impacts on decisions (Yoo & Gretzel, 2008b). Trust has also been addressed as an important issue in context of CGM use and creation (Nielsenwire, 2009), and specifically as a driver of travel-related CGM use (Yoo et al., 2009).

Some of the previous studies further suggest influences of socio-demographic characteristics on people’s CGM activity. Specifically, existing studies found that people’s CGM use and creation behaviors often differ depending on their age, gender, income, education levels, and race (e.g. Jones & Fox, 2009; Lenhart, Madden, Macgill, & Smith, 2007; Verna, 2009). A close relationship between youth and CGM creation and consumption is found in a number of studies (Jones & Fox, 2009; Verna, 2009) which suggest that CGM is found to be more actively used and created by younger users. While younger people are generally more active users for most types of CGM (Lenhart et al., 2007), US bloggers were found to be mostly male and predominantly 35 or older (Technorati, 2008). Gender differences were found in other studies as well. For instance, US males tend to outnumber females in CGM content activity among adult demographics, while females tend to dominate when samples are limited to preteens, teens and college students (Verna, 2009). According to a recent demographic profile report (eMarketer, 2009), US CGM users are more likely college educated, full-time employed and dominantly white. Further, different types of people were found to use different social networking sites. Users of professional networking sites like LinkedIn tend to be more educated, have higher income and are more likely full-time employed while Facebook and MySpace users tend to have lower incomes and are more likely students (eMarketer, 2009). Existing CGM related findings tend to focus on social networking sites or blog engagement but not much attention has been given to product review sites. In the travel CGM context, use and creation of travel reviews is one of the most popular CGM activities (Gretzel et al., 2007).

In terms of travel-related CGM creation, Yoo and Gretzel (2008a) found that travel review writers’ motivations are influenced by their gender and income level. Travelers’ nationality (Gretzel et al., 2008), culture (Lee et al., 2009), membership in a generational cohort (Yoo & Gretzel, 2009b) and their involvement in trip planning (Yoo & Gretzel, 2008b) have also been identified as variables influencing travelers’ CGM use and creation, suggesting that
travelers’ personal characteristics are important factors to be taken into account when trying to understand engagement with CGM.

Looking specifically at CGM creation, these previous studies have suggested that CGM creators are more likely to be young (Lenhart et al., 2007; Verna, 2009), in college (Caruso & Salaway, 2008) and male among adult demographics (Verna, 2009). In the context of travel CGM, similar trends were found. For instance, travel CGM creators tend to be young (Yoo & Gretzel, 2009b), male, have higher incomes and greater internet skills (Yoo & Gretzel, 2008c). They are also more likely frequent travelers as well as highly involved in trip planning (Yoo & Gretzel, 2009b). In addition, being part of a collectivist culture was found to increase the likelihood to produce contents targeting a general public, while individualistic values lead to the creation of contents that reflect personal experiences and serve the purpose of documentation and ego-enhancement (Lee et al., 2009). Further, travel photo posting was found to be a prominent activity for younger generations while boomers and seniors are not likely to post photos online (Yoo & Gretzel, 2009b).

In summary, differences have been mostly looked at in terms of socio-demographic characteristics and culture. While those are important drivers of behaviors, other factors should be investigated as well. Personality is one of the factors that has been used extensively to explain human behaviors and, thus, should also be investigated in the context of CGM.

2.5. Personality

Allport (1937) described personality as “the dynamic organization within the individual of those psychophysical systems that determine his unique adjustments to his environment” (p. 48), and Hogan (1987) referred to it as patterns of thought, feelings, and behavior that are expressed in different circumstances. Personality traits are considered to be enduring, which means they result in stable and cross-situational individual differences (Allport, 1937; Wang & Yang, 2007). An individual’s personality has been found to be related to a wide variety of behaviors and choices such as job performance (Barrick & Mount, 1991), Internet usage (Landers & Lounsbury, 2006) and service quality (Teng, Huang, & Tsai, 1997). While many dimensions of personality have been proposed and tested in previous studies, the Five-Factor Model of personality, sometimes called the Big Five, remains one of the most widely used typologies of personality traits (Goldberg, 1993).

2.5.1. Five-Factor Model

The Five-Factor Model of personality was originally introduced by Thurstone (1934) but most vigorously advocated and conceptualized by Goldberg (1990, 1992). This model assumes that an individual’s personality can be described as a combination of five specific factors. These five factors include Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness. Neuroticism is generally described using words such as fearful, anxious, pessimistic, worried and insecure (Barrick & Mount, 1991; Judge, Martocchio, & Thoresen, 1997). Neurotic individuals are depressed, anxious and unstable. Extraversion is considered to encompass sociability and talkativeness and the ability to make friends with others (Cabrera, Collins, & Salgado, 2006). Extraverts show the tendency to be sociable, talkative and ambitious (Pervin, 1993). Openness is described with adjectives like imaginative, curious, original, broad-minded, and intelligent (Barrick & Mount, 1991). Individuals with high levels of openness enjoy new things, knowledge and experiences (Wang & Yang, 2007). Agreeableness often refers to courteous, flexible, good-natured, cooperative and tolerant individuals (Barrick & Mount, 1991; Costa & McCrae, 1992). Agreeable people are cooperative, cheerful and supportive of others (Wang & Yang, 2007). Conscientiousness is the tendency to be organized, efficient, and systematic (Barrick & Mount, 1991; Saucier, 1994). Conscientious individuals are punctual, reliable, determined, and likely to have a strong need for achievement (Digman & Takemoto-Chock, 1981; Costa & McCrae, 1992). The 45-year longitudinal study by Soldz and Vaillant (1999) confirmed that the Five-Factor Model of personality is highly stable. It has been empirically tested in different countries and reported in many languages (e.g. Cabrera et al., 2006; McCrae & Costa, 1997; Veison, 2001; Yang & Bond, 1990).

2.5.2. Impacts of personality

Personality has emerged as a significant influence factor in various contexts. Consumer behavior research has found that individuals’ personality is an important predictor of brand preference as well as product choice (Aaker, 1997; Malhotra, 1988). The linkage between employees’ personalities and job performance has been well established (Barrick & Mount, 1991; Tett & Burnett, 2003). Influences of a salesperson’s personality on consumers’ perceived service quality (Teng et al., 2007) have also been found. In tourism research, personality has often been used as a basis for market segmentation purposes, with Plog’s travel personality types along an allocentrism–psychocentrism continuum having received substantial attention (Plog, 1974). A number of tourism studies suggest that personality is related to vacation destination choices, leisure activities and also other travel-related decisions (Madrigal, 1995; Nickerson & Ellis, 1991; Roehl & Fesenmaier, 1992). Similarly, Griffeth and Albanese (1996) have proposed that identifying travelers’ personality can be practically used to provide a preferable destination recommendation to travelers.

Some previous findings also provide relevant insights regarding the relationship between personality and CGM creation behaviors. A study by Tuten and Bosnjak (2001) investigated the influence of personality on web usage and found that openness is positively related to the use of the Internet for entertainment and product information search, while neuroticism is negatively related to Web usage. A number of studies (e.g. Cabrera et al., 2006; Matzler, Renzl, Mooradian, & von Krogh, 2006; Wang & Yang, 2007) support a significant linkage between personality and intentions to share knowledge. Specifically, Cabrera et al. (2006) found that three dimensions of the Big Five personality model – agreeableness, openness, and conscientiousness – were positively related to knowledge sharing intentions. Matzler et al. (2006) argued that agreeableness is correlated with sharing knowledge with others since agreeable people tend to be more helpful, generous and cooperative (Barrick & Mount, 1991) and seek cooperation rather than competition (Liao & Chuang, 2004). They also explained that conscientiousness is related to knowledge sharing intentions because conscientious individuals tend to do what is expected of them to complete work and, thus, they are more likely to show willingness to contribute to community success by sharing knowledge. Similarly, a study by Wang and Yang (2007) suggests that extraversion, agreeableness and conscientiousness are positively related to individuals’ intentions to share knowledge.

Few studies have investigated the impacts of personality in a social media context. Acar and Polonsky (2007) studied the influence of extraversion in terms of online social network use and found that extraverts maintain bigger social networks. Relationships between personality and motivations for playing online games were investigated by Jung and Teng (2008). The findings indicated that openness was positively related to discovery and role-playing motivations while conscientiousness was positively correlated with escapism motivations. In addition, extraversion was found to increase the teamwork motivations while agreeableness provided advancement motivations. In contrast, neuroticism was found to be negatively related to teamwork motivations. Recently, Ross and his colleagues...
Hypothesis 1. Neuroticism is expected to be:

(a) negatively related to enjoyment/self-enhancement and altruism and positively related to venting and economic incentives as motivations to create CGM,
(b) positively related to all CGM creation barriers, and
(c) negatively related to CGM creation experience in general and in particular to creation of contents that involve interactions with others and are intended for an unknown audience.

Hypothesis 2. Extraversion is expected to be:

(a) positively related to enjoyment/self-enhancement, altruism and venting but negatively related to economic incentives as motivations to create CGM,
(b) negatively related to structural barriers and lack of intrinsic motivation but positively related to time constraints/forgetting, and
(c) positively related to CGM creation experience in general and in particular to creation of contents that involve interactions with others and are intended for an unknown audience.

Hypothesis 3. Openness is expected to be:

(a) positively related to enjoyment/self-enhancement, altruism and venting but negatively related to economic incentives as motivations to create CGM,
(b) negatively related to structural barriers and lack of intrinsic motivation but positively related to time constraints/forgetting, and
(c) positively related to CGM creation experience in general and in particular to creation of experiential contents (blogs, photos, video) intended for an unknown audience.

Hypothesis 4. Agreeableness is expected to be:

(a) positively related to altruism and negatively related to venting.
(b) negatively related to structural barriers, and
(c) positively related to the creation of CGM contents that are aimed at helping others (travel reviews, discussion forums).

Hypothesis 5. Conscientiousness is expected to be:

(a) positively related to enjoyment/self-enhancement and altruism,
(b) negatively related to structural barriers and time constraints/forgetting, and
(c) positively related to the creation of CGM contents that are aimed at helping others (travel reviews, discussion forums).

3. Methodology

3.1. Data collection

An online survey was conducted in July 2008 to investigate the influence of personality on travel-related CGM creation motivations, perceived barriers and specific behaviors. A total of 59,186 members of a commercial online research panel residing in the United States were invited to participate in the survey. No additional incentives beyond the rewards provided by the panel company were offered. A total of 3109 panelists responded to the survey invitation but only 2671 indicated they were active Internet users. Further, of those Internet users, 1682 had travelled for pleasure within 12 months prior to the study. These online travelers form the actual sample for the study. Since the overall response rate was rather low and follow-ups were not possible given the terms of the purchase agreement, the characteristics of the respondents were compared to the characteristics of the sample. No significant differences were found. Further, the characteristics of the online travelers who responded resembled those found in previous studies investigating Internet use in the context of travel (TIA, 2008).

3.2. Measures

Personality was assessed based on the “Big Five” personality model. Barrick and Mount (1991) noted that “the robustness of the 5-factor model provides a meaningful framework for formulating and testing hypotheses” (p. 23). To measure the five personality traits, 5 self-descriptive sentence items for each factor were adapted from the International Personality Item Pool (IPIP; Wang & Fesenmaier, 2004b; Goldberg, 1999). All items were measured on a 5-point Likert scale ranging from 1-Strongly Disagree to 5-Strongly Agree. Factor analyses were conducted to evaluate the unidimensionality of the scales while Cronbach’s coefficient alpha was used to test the internal consistency of the scales. As can be seen in Table 1, the results of the analyses confirm the unidimensionality and the alpha values are above the recommended level of 0.7 (Hair, Anderson, Tatham, & Black, 1998) for all factors. The five personality scales were constructed as additive scales based on the results and then collapsed into high and low groups using scale means as the cut-off values. This approach greatly simplified the data analysis as many of the dependent variables are categorical. Also, it can be justified as typological approaches are common in the realm of personality studies and even for dimensional tests the results are usually interpreted categorically (e.g. extraverted vs. introverted).

The measures for motivations to engage in travel-related CGM creation were adapted from a number of previous studies (Hennig-Thurau et al., 2004; Wang & Fesenmaier, 2004b; Yoo & Gretzel, 2008a) and modified to fit the travel-related CGM creation context. A total of 31 items were developed to measure 7 motivational factors: Enjoyment, self-enhancement, reciprocity, altruism, venting, economic incentives and self-identity formation. The
structure and potential overlap of the motivations were examined using an exploratory factor analysis and the reliability of the scales was tested with Cronbach's alpha. The results of the exploratory factor analysis showed that the self-identity formation items did not form a separate factor nor did they strongly load onto any of the other factors. Thus, the four items were deleted and not considered for further analyses. Enjoyment and self-enhancement items loaded onto one factor, as did reciprocity and altruism items. Another 4 items which were ambiguous in their assignment and did not contribute substantially to a factor were deleted. This cleaning process resulted in a four component solution with 23 items and the Cronbach alpha scores supported the reliability of the respective constructs (Table 2).

Measurement items for barriers of CGM creation were developed based on the answers to an open-ended question included in a previous travel review study that asked respondents to list barriers to travel review writing (Gretzel et al., 2007) as well as studies that had investigated lurking (Nonnecke & Preece, 1999; Preece et al., 2004). A total of 14 items were developed to measure barriers to travel-related CGM creation. An initial exploratory factor analysis indicated that three items were ambiguous in their loadings and introduced a lot of "noise". Since they were not frequently mentioned reasons and had been found to be of lesser importance in the previous studies, the items were deleted. The resulting factor solution suggests three dimensions which explain 59.4% of the variance.

Internal consistency was checked with Cronbach's alpha and inter-item correlation values. Hair et al. (1998) noted that although the generally agreed upon lower limit for Cronbach's alpha is .70, "it may decrease to .60 in exploratory research" (p. 118). They also suggested that values exceeding .30 for inter-item correlations support the reliability of constructs. Given the exploratory nature of the barriers research, the alpha values of .82 and .63 for Factor 1 and 2 respectively can be interpreted as favorable. The two items in Factor 3 are not very strongly correlated but the inter-item correlation is higher than the suggested .30 level. Also, they thematically make sense together. Factor 1 includes items that hint at structural barriers, Factor 2 describes lack of intrinsic motivation and Factor 3 includes two items that hint at existing motivation but no actualized behavior because of time constraints or forgetting (Table 3).

To gauge CGM creation behaviors, respondents were first asked to indicate whether they had ever posted travel-related contents online. Those who had CGM creation experience were further asked which specific contents they had contributed, including travel-related reviews, discussion board/forum postings, blogs, comments to a blog, photos and videos. Bloggers were asked about their blogging experience, their intended audiences, the materials included in the blog and the types of contents they discuss in their blogs.

For the purpose of describing the sample, socio-demographic questions as well as questions related to the general use and perceptions of travel-related CGM were asked.

3.3. Analysis

Descriptive analyses were conducted to describe the participants’ demographic profile as well as their general CGM use and creation behaviors as well as their trust in travel-related CGM and the perceived impact of CGM on their travel-related decisions. A series of t-tests were conducted to investigate the influence of personality on the specific motivations and barriers to travel CGM creation. This approach was selected to allow for the investigation of individual relationships. To control the increased risk of Type 1 error due to separate analyses, Bonferroni adjustment (Tabachnick & Fidell, 2001) was applied to the alpha levels to set a more stringent alpha level for each comparison. Alpha levels of .0125 (t-tests that examine the differences in CGM creation motivation) and .017 (t-tests that examine differences in CGM creation barriers) were used to judge statistical significance for the results instead of the typical .05 level. Further, Chi-square statistics were used to examine the effects of personality categories on CGM creation behaviors, which were measured using dichotomous variables.

4. Results

4.1. Profile of sample

The online travelers in the sample were somewhat more likely to be female (56.3%), mostly married/living with a partner (63.5%), employed full time (48.5%), highly educated (53.9% have a college degree), living without children (67.1%), wealthy (59.7% have household incomes of $50,000 or more), and predominantly white (82.3%). The largest age group was comprised of those who are between 35 and 54 years old (42.9%). Also, 73% had used the Internet for their pleasure travel planning. This percentage is very similar to the 76.4% reported in the latest TIA report on Internet use for travel (TIA, 2008). Among those who use the Internet for travel planning, 27.7% plan all of their travel using the Internet (compared to 23.6% in the TIA dataset) and 31.7% plan at least 75% of their travel using the Internet (compared to 30.5% in the TIA data set). These similarities give external validity to our results. In terms of their personality characteristics, participants are generally open to experiences...
M = 3.78, SD = .78), agreeable (M = 3.76, SD = .76), conscientious (M = 3.69, SD = .75) and somewhat extravert (M = 3.43, SD = .91) but not very neurotic (M = 2.70, SD = .99).

4.2. Travel-related CGM use

About half (50.5%) of the respondents indicated that they had read other travelers’ postings in the course of planning their most recent overnight pleasure trips. The majority of these CGM users looked at travel reviews (80.5%) and photos (50.6%). Blogs (21.8%), comments posted on blogs (23.6%), and postings on discussion forums (24.4%) were used by less than a quarter of the CGM users included in the study. Multimedia representations of travel experiences in the form of videos (14.2%) and audio files/podcasts (3.8%) were only used by a small portion of these CGM users. The most commonly used websites to find travel-related CGM were Yahoo!Travel (40.8%), online travel agency websites (36.1%) and TripAdvisor (29.0%).

A large majority of online travelers (81.6%) at least somewhat trust the information that is posted by other travelers. This percentage is significantly higher (91.5%) for those who actually use CGM in their trip planning, suggesting that trust perceptions influence individual use decisions. Almost 40% of online travelers indicated that they trust CGM more than travel guidebooks and travel articles (49.9% for those who use CGM). Only 18.1% are suspicious about marketers posting contents under the disguise of being a consumer (no significant difference between users and non-users). However, 58.7% would still rather place their travel decision on one review from a person they know than 100 reviews written by strangers (55.4% for those who are CGM users). The greatest

### Table 2
Factor loadings and reliability for CGM creation motivations.

<table>
<thead>
<tr>
<th>Construct names and items</th>
<th>M</th>
<th>Factor loading</th>
<th>Eigen value</th>
<th>% of var.</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enjoyment/self-enhancement</td>
<td>3.44</td>
<td>.81</td>
<td>6.11</td>
<td>26.55</td>
<td>.93</td>
</tr>
<tr>
<td>To entertain others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To reflect on your trip experiences</td>
<td>.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To store info. that is important to you</td>
<td>.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To stay in touch with family/friends</td>
<td>.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To entertain yourself</td>
<td>.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Because you enjoy it</td>
<td>.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To relive your trip experiences</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To express yourself creatively</td>
<td>.72</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Because it is a fun thing to do</td>
<td>.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To document personal experiences</td>
<td>.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reciprocity/altruism</td>
<td>3.84</td>
<td>.84</td>
<td>4.06</td>
<td>17.67</td>
<td>.87</td>
</tr>
<tr>
<td>Because you benefited and want others to benefit too</td>
<td>.84</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Info. posted by other travelers helped you and you want to return the favor</td>
<td>.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To help other people</td>
<td>.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To share practical info. with others</td>
<td>.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Because good travel service providers should be supported</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Because you want to contribute to a pool of info. that assisted you in planning previous trips</td>
<td>.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venting</td>
<td>3.14</td>
<td>.86</td>
<td>2.67</td>
<td>11.60</td>
<td>.82</td>
</tr>
<tr>
<td>To express your anger about a negative experience you had</td>
<td>.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To vent negative feelings</td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It helps you overcome negative experiences</td>
<td>.68</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To warn others</td>
<td>.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic incentives</td>
<td>2.37</td>
<td>.87</td>
<td>2.61</td>
<td>11.34</td>
<td>.88</td>
</tr>
<tr>
<td>Incentives are offered for posting</td>
<td>.87</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To make money</td>
<td>.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Because you can get rewards for it</td>
<td>.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total variance explained</td>
<td></td>
<td></td>
<td></td>
<td>67.16</td>
<td></td>
</tr>
</tbody>
</table>

### Table 3
Factor loadings and reliability for CGM creation barriers.

<table>
<thead>
<tr>
<th>Construct names and items</th>
<th>M</th>
<th>Factor loading</th>
<th>Eigen value</th>
<th>% of var.</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural barriers</td>
<td>2.55</td>
<td>.79</td>
<td>3.27</td>
<td>29.68</td>
<td>α = .82</td>
</tr>
<tr>
<td>Do not have necessary skills/do not know how</td>
<td>.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of confidence</td>
<td>.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have Internet access problems</td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worried that the information I post will be misused</td>
<td>.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Privacy concerns</td>
<td>.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don’t travel enough</td>
<td>.55</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of intrinsic motivation</td>
<td>3.27</td>
<td>.83</td>
<td>1.74</td>
<td>15.78</td>
<td>α = .63</td>
</tr>
<tr>
<td>No interest</td>
<td>.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too much effort</td>
<td>.68</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No need for me to do it since others seem to do it anyway</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivated but hindered by time constraint/forgetting</td>
<td>3.20</td>
<td>.81</td>
<td>1.53</td>
<td>13.93</td>
<td>r = .32</td>
</tr>
<tr>
<td>Not enough time</td>
<td>.81</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forget to do it</td>
<td>.72</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total variance explained</td>
<td></td>
<td></td>
<td></td>
<td>59.40</td>
<td></td>
</tr>
</tbody>
</table>

* % of variance explained.
influence on travel-related decisions was perceived with respect to accommodation decisions, with 81% of CGM users reporting that CGM had at least some influence on their accommodation decision, followed by travel activities at the destination (75.2%) and dining (68.3%). Only about half of the CGM users perceived at least some influence on their destination choice (57.2%), shopping (56.2%), how they travelled to the destination (52.5%) and the time the trip was taken (51.5%). Table 4 presents the descriptive results related to CGM use and perceptions.

4.3. Travel-related CGM creation

While half of the surveyed online travelers use travel-related CGM, only 17% have ever posted travel materials online. Of those who have posted contents, most (74%) have posted contents in the form of travel reviews, 56% have posted photos on online photo sharing sites, and 54% have contributed to a travel discussion board or forum. Almost half (47%) have posted a comment to somebody else’s travel blog. About 37% have written their own blog and 21% or forum. Almost half (47%) have posted a comment to somebody else’s travel blog. About 37% have written their own blog and 21% have posted a video.

Of those who blog, most have started blogging fairly recently, with 35.8% having started within 6 months prior to the survey, 38.8% between 6 months and 2 years, and only 25.4% have blogged for 2 years or more. This suggests that blogging is still growing as an activity. The majority (72%) writes travel blogs to inform people they know, but a considerable number (52%) also write for a general audience who have never met. Most (84%) include written text in their blogs and 69% include photos, while only 30% include videos, 24% audio files, 22% graphics and 22% links to other sites/blogs. Most (81%) write about personal experiences, practical travel information about the destination (63%), local people, food and culture (54%), general facts about the destination (51%), people they met while traveling (49%), warnings and tips for others (48%), and evaluations of travel-related services (43%). Detailed results are presented in Table 5.

The most prominent drivers of travel CGM creation are the motives of reciprocity/altruism (M = 3.84, SD = .77) and enjoyment/self-enhancement (M = 3.44, SD = .93). The motivation of venting was also found to be somewhat influential (M = 3.14, SD = 1.00), but economic incentives are clearly not seen as an important driver for travel CGM creation, with a mean value of only 2.37 (SD = 1.16). As far as barriers are concerned, lack of intrinsic motivation is the most prominent barrier (M = 3.27, SD = .855), followed by motivated but hindered by time constraints or forgetting (M = 3.20, SD = .978) and structural barriers (M = 2.55, SD = .882).

4.4. Influence of personality on CGM creation motivations and barriers

Several significant influences of personality on travel-related CGM creation motivations and barriers were found (Tables 6 and 7). The results show that reciprocal/altruistic motivations are significantly lower for the high neuroticism group,
indicating that neuroticism decreases reciprocal/altruistic motivations, which are the most prominent motives in the sample (Table 6-1). Extraversion and openness were found to provide intrinsic motivations to generally create CGM. As presented in Table 6-2 and -3, travelers who are extraverts and open to experience are more likely to be motivated by enjoyment/self-enhancement, helping others and also venting. No significant differences were found for motivation through economic incentives. Agreeableness and conscientiousness also increase hedonic and altruistic motivations but not the need for venting (Table 6-4 and -5). This suggests that agreeableness and conscientiousness motivate positive CGM.

In terms of barriers, neurotic travelers perceive greater barriers, which indicates that neuroticism increases perceived barriers to travel-related CGM creation (Table 7-1). In contrast, extraversion decreases perceived barriers. In particular, extraverts are less likely to perceive structural barriers and lack of intrinsic motivation (Table 7-2). Individuals who are open to experience are also less likely to perceive structural barriers to contributing contents online. However, because these individuals are open to experiences of all sorts, the high group lacks time for CGM creation and often forgets to do it (Table 7-3). Similar patterns can be found for those who are high in agreeableness and conscientiousness (Table 7-4 and -5). Those who score high on agreeableness and those who score high on conscientiousness are less likely to perceive structural barriers such as Internet access problems, lack of skills, lack of confidence and lack of travel experiences. However, although the result is only marginally significant, more agreeable individuals tend to struggle with lack of time to engage in travel-related CGM creation and often forget to do it.

### Table 6
Influence of personality on CGM creation motivations.

<table>
<thead>
<tr>
<th>Motivations</th>
<th>Mean Low</th>
<th>Mean High</th>
<th>Mean difference</th>
<th>t-Value (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-1. Neuroticism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enjoyment/self-enhancement</td>
<td>3.44</td>
<td>3.43</td>
<td>0.01</td>
<td>0.07(170)</td>
</tr>
<tr>
<td>Reciprocity/altruism</td>
<td>4.03</td>
<td>3.65</td>
<td>0.37</td>
<td>3.27(170)</td>
</tr>
<tr>
<td>Venting</td>
<td>2.99</td>
<td>3.28</td>
<td>−0.28</td>
<td>−1.86(170)</td>
</tr>
<tr>
<td>Economic incentive</td>
<td>2.19</td>
<td>2.53</td>
<td>−0.34</td>
<td>−1.94(170)</td>
</tr>
<tr>
<td>6-2. Extraversion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enjoyment/self-enhancement</td>
<td>3.08</td>
<td>3.63</td>
<td>−0.55</td>
<td>−3.89(170)</td>
</tr>
<tr>
<td>Reciprocity/altruism</td>
<td>3.54</td>
<td>3.99</td>
<td>−0.45</td>
<td>−3.82(170)</td>
</tr>
<tr>
<td>Venting</td>
<td>2.83</td>
<td>3.32</td>
<td>−0.48</td>
<td>−3.34(154)</td>
</tr>
<tr>
<td>Economic incentive</td>
<td>2.24</td>
<td>2.45</td>
<td>−0.22</td>
<td>−1.17(170)</td>
</tr>
<tr>
<td>6-3. Openness to experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enjoyment/self-enhancement</td>
<td>3.08</td>
<td>3.59</td>
<td>−0.51</td>
<td>−3.95(145)</td>
</tr>
<tr>
<td>Reciprocity/altruism</td>
<td>3.43</td>
<td>4.01</td>
<td>−0.58</td>
<td>−4.88(170)</td>
</tr>
<tr>
<td>Venting</td>
<td>2.83</td>
<td>3.29</td>
<td>−0.46</td>
<td>−3.21(137)</td>
</tr>
<tr>
<td>Economic incentive</td>
<td>2.41</td>
<td>2.36</td>
<td>0.05</td>
<td>0.29(129)</td>
</tr>
<tr>
<td>6-4. Agreeableness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enjoyment/self-enhancement</td>
<td>3.08</td>
<td>3.60</td>
<td>−0.52</td>
<td>−3.87(131)</td>
</tr>
<tr>
<td>Reciprocity/altruism</td>
<td>3.47</td>
<td>4.00</td>
<td>−0.53</td>
<td>−4.48(170)</td>
</tr>
<tr>
<td>Venting</td>
<td>3.05</td>
<td>3.19</td>
<td>−0.13</td>
<td>−0.85(124)</td>
</tr>
<tr>
<td>Economic incentive</td>
<td>2.45</td>
<td>2.34</td>
<td>0.12</td>
<td>0.66(170)</td>
</tr>
<tr>
<td>6-5. Conscientiousness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enjoyment/self-enhancement</td>
<td>3.20</td>
<td>3.59</td>
<td>−0.39</td>
<td>−2.90(169)</td>
</tr>
<tr>
<td>Reciprocity/altruism</td>
<td>3.55</td>
<td>4.01</td>
<td>−0.46</td>
<td>−4.03(170)</td>
</tr>
<tr>
<td>Venting</td>
<td>3.03</td>
<td>3.22</td>
<td>−0.19</td>
<td>−1.23(170)</td>
</tr>
<tr>
<td>Economic incentive</td>
<td>2.40</td>
<td>2.36</td>
<td>0.04</td>
<td>0.26(164)</td>
</tr>
</tbody>
</table>

* p < .05. 
** p < .01.

4.5. Influences of personality on CGM creation behaviors

A series of Chi-square analyses investigated possible influences of personality traits on specific travel-related CGM creation behaviors. Only the significant results are reported in Table 8. In general, extraversion increases the likelihood to have CGM creation experience. About 19% of extraverts reported that they had created travel-related CGM while only 14% of travelers in the introverts group did. Both extraversion and openness to experience increase the likelihood that travelers write travel blogs for an unknown audience. More than 60% of travel bloggers who are high in extraversion and openness said that they contributed online travel contents for people they have never met, while only 28.6% of low extraverts and 22.2% of low openness individuals do the same. In addition, the results indicate that personality characteristics influence the types of CGM created. Neuroticism decreases the likelihood to contribute to a travel-related discussion board/forum while extraversion and agreeableness increase the chances. Further, extraverts are more likely to respond to others’ blogs with comments while openness, agreeableness and conscientiousness motivate to post travel reviews. In summary, most of the hypothesized relationships were confirmed.

5. Discussion and conclusions

Consumer-generated media can only strive when the factors that drive individual creation behaviors are well understood. The findings of this study provide important insights regarding online travelers’ CGM behaviors and in particular their creation behaviors from both theoretical and practical perspectives.

From the theoretical point of view, the results derived from this study expand our understanding of travelers’ perceptions, use and creation of CGM. The descriptive findings suggest that travel-related CGM have become an important information source for travelers as more than half of online travelers used CGM for their recent overnight pleasure trip planning and the majority trusted these contents. However, the findings showed that still only a small number of travelers engages in CGM creation, thus confirming the gap between CGM use and creation found in previous studies (eMarketer, 2007; Verna, 2009), and emphasizing the need to understand what drives some users to reach higher levels of CGM engagement than others. With respect to motivations to create travel-related CGM, CGM creators were found to be mostly motivated by altruistic and hedonic benefits. The findings related to barriers indicate that travelers are mostly prevented from creating contents because of lack of time and interest. These findings again confirm previous research that has found altruistic and hedonic motives to be important drivers for online travel content contributors (Wang & Fesenmaier, 2004a, 2004b; Chung & Buhlalis, 2008; Yoo & Gretzel, 2008a) and lack of time and interest to be major barriers for travel-related CGM creation (Gretzel et al., 2007; Chalkiti & Sigala, 2008). Therefore, the research presented in this paper also contributes to the literature on motivations to engage in online content creation.

Most importantly, this study investigated the role of individual personality traits as drivers of CGM creation behaviors. The results suggest that travelers’ personality is an important determinant of motivations and barriers to CGM creation as well as of specific creation behaviors. Altruistic and enjoyment/self-enhancement motivations were found to be stronger drivers for those creators who exhibit high levels of extraversion, openness, agreeableness and conscientiousness, while neuroticism decreases the likelihood to be motivated by altruism. Extraversion and openness to experience also increase the likelihood for a CGM creator to be motivated by the need for venting. Neuroticism generally increases barriers to
CGM creation while the other personality dimensions lower structural barriers. In addition, extraversion lowers barriers due to lack of interest/intrinsic motivation and generally leads to a greater likelihood to create travel-related CGM while openness and agreeableness result in greater barriers due to time constraints/forgetting. These results are largely consistent with the findings in face-to-face communication contexts where research has found that extraversion, openness, conscientiousness and agreeableness are positively related to individuals’ intention to share knowledge while a negative linkage between neuroticism and knowledge sharing intention was also found in previous studies (e.g. Cabrera et al., 2006; Matzler et al., 2006; Wang & Yang, 2007).

Further, significant influences of personality on travel CGM creation behaviors were found and provide important insights as to who engages in what kind of content creation. Extraverts are more likely to have CGM creation experience, and both extraversion and openness increase the likelihood that travelers contribute contents online for the purpose of communicating with unknown audiences. Personality was also found to influence the types of contents that online travelers create. As hypothesized, extraverts seek out CGM

Table 7
Influence of personality on CGM creation barriers.

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Mean difference</th>
<th>t-Value (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>7-1. Neuroticism</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural barriers</td>
<td>0.44</td>
<td>-8.23**</td>
</tr>
<tr>
<td>Lack of intrinsic motivation</td>
<td>0.16</td>
<td>-2.91**</td>
</tr>
<tr>
<td>Motivated but hindered</td>
<td>-0.19</td>
<td>-3.10**</td>
</tr>
<tr>
<td><strong>7-2. Extraversion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural barriers</td>
<td>0.15</td>
<td>2.68**</td>
</tr>
<tr>
<td>Lack of intrinsic motivation</td>
<td>0.15</td>
<td>2.84**</td>
</tr>
<tr>
<td>Motivated but hindered</td>
<td>-0.11</td>
<td>-1.82</td>
</tr>
<tr>
<td><strong>7-3. Openness to experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural barriers</td>
<td>0.24</td>
<td>4.52**</td>
</tr>
<tr>
<td>Lack of intrinsic motivation</td>
<td>0.10</td>
<td>1.88</td>
</tr>
<tr>
<td>Motivated but hindered</td>
<td>-0.24</td>
<td>-3.93**</td>
</tr>
<tr>
<td><strong>7-4. Agreeableness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural barriers</td>
<td>0.16</td>
<td>2.74**</td>
</tr>
<tr>
<td>Lack of intrinsic motivation</td>
<td>0.00</td>
<td>0.04(831)</td>
</tr>
<tr>
<td>Motivated but hindered</td>
<td>-0.12</td>
<td>-1.99**</td>
</tr>
<tr>
<td><strong>7-5. Conscientiousness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural barriers</td>
<td>0.15</td>
<td>2.75**</td>
</tr>
<tr>
<td>Lack of intrinsic motivation</td>
<td>-0.02</td>
<td>-0.33(967)</td>
</tr>
<tr>
<td>Motivated but hindered</td>
<td>-0.08</td>
<td>-1.29(953)</td>
</tr>
</tbody>
</table>

* p < .05.
** p < .01.

Table 8
Influence of personality on CGM creation behaviors.

<table>
<thead>
<tr>
<th>CGM creation behaviors</th>
<th>Low (%)</th>
<th>High (%)</th>
<th>χ²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>8-1. Neuroticism</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributed CGM types</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel-related discussion board/forum</td>
<td>64.2</td>
<td>46.2</td>
<td>4.92*</td>
</tr>
<tr>
<td><strong>8-2. Extraversion</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel-related CGM creation experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>14.0</td>
<td>19.2</td>
<td>4.51*</td>
</tr>
<tr>
<td>Contributed CGM types</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel-related discussion board/forum</td>
<td>41.0</td>
<td>61.8</td>
<td>5.55*</td>
</tr>
<tr>
<td>Comment to a travel-related blog written by somebody else</td>
<td>35.9</td>
<td>52.7</td>
<td>4.07*</td>
</tr>
<tr>
<td>Intended audience of blog</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People I have never met</td>
<td>28.6</td>
<td>61.4</td>
<td>4.87*</td>
</tr>
<tr>
<td><strong>8-3. Openness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributed CGM types</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel reviews</td>
<td>58.5</td>
<td>80.7</td>
<td>8.23**</td>
</tr>
<tr>
<td>Intended audience of blog</td>
<td>22.2</td>
<td>61.7</td>
<td>6.61*</td>
</tr>
<tr>
<td>People I have never met</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>8-4. Agreeableness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributed CGM types</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel reviews</td>
<td>50.9</td>
<td>84.6</td>
<td>20.3**</td>
</tr>
<tr>
<td>Intended audience of blog</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People I have never met</td>
<td>36.4</td>
<td>63.2</td>
<td>9.85**</td>
</tr>
<tr>
<td><strong>8-5. Conscientiousness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributed CGM types</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel reviews</td>
<td>63.8</td>
<td>80.6</td>
<td>5.21*</td>
</tr>
</tbody>
</table>

* p < .05.
** p < .01.
types that allow for interactions, and agreeable and conscientious travelers are more likely to engage in content creation for the benefit of others. However, a relationship between openness to experience and more experiential forms of CGM was not found. Considering that participation and collaboration are the vital traits of Web 2.0 (Dearstyne, 2007; Sigala, 2008), these findings provide a clearer picture of who the creators of travel-related CGM are and stress the importance of personality traits as drivers of differences in CGM creation behaviors.

The results of this study show that traditional findings related to personality can be applied to understand individuals’ online behaviors, and specifically their engagement in Web 2.0-related activities, thus contributing to the growing stream of research that tests traditional theories in the context of online environments. For example, extraverts are typically perceived to be outgoing and social in face to face contexts and our results show that extraverts are indeed active players in social communication online. They use CGM to fulfill their needs for expression and for making social connections. This stresses the importance of personality factors in shaping interactions with new media. It also indicates that other individual characteristics identified as influential factors for travel information search in offline settings may be equally influential in online travel information search contexts. Future research should examine such additional factors to better understand travelers’ CGM use and creation.

Another contribution of this study lies in the development of measurement scales for motivations and barriers of CGM. Considering the growing need to understand why consumers engage in online content creation or not, these scales can serve as useful instruments in future research related to online content creation. To increase the validity of the scales, further testing in different contexts is of course necessary.

From a practical perspective, the findings of this study can inform the design and promotion of travel-related CGM sites. Travel CGM websites may consider encouraging their users to provide personality-related information. A quick personality quiz can be integrated into a user’s registration process, making the sign-up more interesting and enjoyable. The personality information would help with personalization of contents and appeals, hopefully lowering the barriers to content creation. The creators’ personality information can also enhance the overall trust placed in their CGM contents by those who consume them. Grau (2008) argued that CGM can be more useful when they reveal information about the writer’s personality. He explained that travelers assign less trust to online contents than to recommendations from their friends or family because they come from individuals about whom very little information is available. Providing source information would help readers to better evaluate the source (O’Keefe, 2002), thus enhancing the overall trustworthiness and usefulness of the CGM. Since personality plays an important role in travel (Plog, 1974), it should be considered as a source characteristic to be displayed as part of the description of the content creator.

In terms of marketing and management, the findings can help tourism marketers and CGM site owners understand who the target markets for certain CGM types are and what specific needs they have. For example, extraverts love interactions and will flock to CGM types that allow them to express themselves while being social. Further, when placing advertising on specific CGM sites, marketers need to know who the audience for their messages will be. Also, for those who mine the contents to derive market intelligence or to conduct other forms of research, the results of our study suggest that the findings from such efforts have to be interpreted in light of the knowledge of who the travel-related content creators are. Contents derived from discussion forums, for example, will only reflect the opinions of individuals with extravert and agreeable personalities.

Our study has of course some limitations. The questions were asked in the context of travel and do not necessarily apply to other forms of CGM. Also the sample of the study was only collected in the United States and largely consisted of Caucasians between 35 and 54 years old. These limitations need to be considered when applying the findings. In terms of CGM creation related questions, we measured a series of CGM-related variables but neglected to measure others. It would, for example, be interesting to examine whether personality traits not only influence the type but also the extent of CGM creation, such as frequency of creation, number of contributed contents, and number of comments received by others. Our results also suggest that personality might lead to differences in length and valence of contributions. In addition, questions related to motivations and barriers to CGM creation included in this study referred to travel-related CGM in general. However, motivations and barriers can vary for different types of CGM such as blogs and travel reviews. This suggests that future studies should investigate the influence of personality on motivations, barriers and behaviors specific to a certain type of CGM. Further, it has been argued that personality does not operate alone in directing behavior or experience and important interactions of personality and social context have been suggested (Allport, 1937; Mannell & Kleiber, 1997). Consequently, social factors should be tested together with personality traits in future research.

Allport (1937) noted that personality traits determine behaviors. The results of this study confirm that the attitudes and behaviors of travel-related CGM creators are influenced by five big personality traits. Yet, still many other influential factors potentially exist and have yet to be examined. For example, Jung’s (1971) theory of psychological type suggested the existence of two dichotomous pairs of cognitive functions which are the rational judging functions (thinking and feeling) and irrational perceiving functions (sensing and intuition). It would be interesting to investigate if individuals’ different level of these functions would influence their evaluations of and preferences for specific types of CGM and also their CGM engagement. In addition, this study was solely based on the Big-Five factor personality model, which does not include other specific personality traits such as shyness or self-esteem. Orr and colleagues (2009) recently found that shyness was significantly positively correlated with the time spent on Facebook and having favorable attitudes toward social networking sites while it was significantly negatively correlated with the number of Facebook “Friends”. Since there are many types of CGM, the influences of this specific personality characteristic should be further tested in future research. While this study shed light on the influence of personality characteristics on CGM creation, more research is clearly needed to inform our understanding of CGM creation.

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References


