



# New members' online socialization in online communities: The effects of content quality and feedback on new members' content-sharing intentions



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## ABSTRACT

Online communities' viability and success are dependent on current members' active participation and content contribution, as well as on the sustainable community registration of new members. Based on the member-life cycle perspective, this study attempted to discover mechanisms that might be employed to increase new members' community participation. This study focused on user-generated content (UGC) sharing. The results of this study suggest that UGC quality gaps that exist between current and new members are important factors that might affect new members' socialization. In addition, the results demonstrated that feedback provided by members can affect new members' participation when UGC quality gaps exist. The results revealed that new members preferred an equivalent UGC community to either a superior or inferior community when they were unable to derive benefits from those communities. However, an investigation of the types of feedback provided revealed that new members expressed preferences for superior UGC communities to obtain learning opportunities and expressed preferences for inferior UGC communities to develop social relationships. This study can help researchers better understand how UGC communities' elements can affect new members' behaviors. In addition, the results can help community managers devise differentiated approaches.

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## 1. Introduction

Recently, social-computing systems designed to enable users to share information have experienced a dramatic rise in popularity (Park, 2013). These systems enable online social interactions, as well as the rich exchange of multimedia (e.g., photos and videos) (Parameswaran & Whinston, 2007) based on user participation and online community formation. In these systems, people share personal content known as user-generated content (UGC). Users either create personal UGC or copy and revise UGC drawn from other sources. Some best-known examples of social-computing communities include content sites (e.g., Flickr and YouTube), and social interaction platforms (e.g., Facebook and Twitter).

Online communities' viability and success, including UGC sites, are dependent on current members' active participation and content contribution (Butler, 2001), as well as on the sustainable community registration of new members. Current members' participation is crucial because those members can answer

questions, contribute content, maintain and enforce appropriate behavioral norms, and provide other types of support that will sustain communities' prosperous continuation (Ren et al., 2012). Therefore, many studies have attempted to determine community members' motivations and desires. Studies have focused on members' access to quality content or the creation of incentives to encourage site visitors to remain and participate (Galliers & Leidner, 2003; Jeppesen & Frederiksen, 2006; Moore & Serva, 2007; Porter & Donthu, 2008; Ren et al., 2012; Rheingold, 1993). On the other hand, to ensure communities' sustainability and success, each community must attract new members who will join and participate in community activities. However, based on a review of the literature, only a limited number of studies have focused on new members' socialization in online communities.

Community members' roles have evolved over time (Lave & Wenger, 1991). Members initially participate as visitors. Members begin participating as newcomers. They continue participating and become more seasoned members. Ultimately, they become major participants (Kim, 2000). This process is known as the member-life cycle. Each role requires each member to acquire new levels of skills and experiences. These acquisitions can exert influence on members' reputations and status (Iriberry & Leroy, 2009; Kim, 2000; Wenger, 1998).

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Based on the member-life cycle perspective, Joyce and Kraut (2006) discovered the existence of two distinct phases of online community participation: joining and contributing (Moreland & Levine, 2001; Wittenbaum, Hubbell, & Zuckerman, 1999). Janzik and Raasch (2011) demonstrated the evolution of participation motivation over time. During early stages, newcomers have strong desires for the provision of information and support by other members (Fuller, Jawecki, & Muhlbacher, 2007; Hemetsberger, 2002). In contrast, during later stages, flow-experiences (Csikszentmihalyi, 1990) play important roles. In other words, newcomers may feel more comfortable and will be more likely to contribute content and opinions once they achieve certain levels of experience (Wasko & Faraj, 2000). Barriers to members' participation includes the fear that accompanies the provision of wrong answers or content and concerns related to new members' abilities to meet current members' expectations. Several studies suggest that the development of trust and the provision of positive feedback among members can help overcome these barriers (Leimeister, Ebner, & Krcmar, 2005; Porter & Donthu, 2008).

In the context of UGC-sharing, in which users upload and consume their creations or achievements, new members' socialization within communities can be more difficult and awkward. In other words, new members who intend to share UGC in online communities for the first time may experience various psychological states derived from current community characteristics. First, new members may have concerns related to the suitability of their UGC in relation to current members. New members may compare the quality levels of their UGC with the quality levels of current members' UGC. Second, new members may worry about the types of feedback they might receive from current members when they share UGC (e.g. evaluative feedback, friendly feedback, or no feedback). Finally, new members may be unsure whether they will develop good relationships with current members based on their UGC-sharing. In summary, current members' characteristics and the quality of online communities' current contents may affect new members' participation, particularly with respect to reading and sharing behaviors.

The current study will attempt to discover the mechanisms that might affect new members' community participation. In particular, it will focus on UGC-sharing. Initially, we investigated the effects of the quality gaps that exist between content uploaded by current and new members on new members' participation. Then, we examined the moderating role of feedback on new members' UGC-sharing based on existence of quality gaps.

## 2. Theoretical background

### 2.1. Participation and Gratification Theory

One major research topic in communication research has been users' reactions to content characteristics. During the early stages of communication research, content was a primary focus. Media users were generally considered passive users. However, as the new media environment emerged (including the use of VCRs and cable TV), researchers increasingly focused on media consumers' active aspects. Specifically, many studies focused on audiences' psychological processes during their exposure to various types of mass media. This process has been described as the Use and Gratification Theory (Swanson, 1987).

The Use and Gratification Theory focuses on psychological communication motives. The theory attempts to explain why different people use the same mass media to achieve different purposes (Severin & Tankard, 1997). This theory assumes that media users are goal-directed because they have needs. Therefore, they can select appropriate media to gratify those needs (Katz, Blumler, & Gurev-

itch, 1974). The Internet offers a higher level of interactivity than other traditional media. Therefore, Internet users can discover more opportunities to gratify their tastes and needs (Ruggiero, 2000).

According to numerous studies focused on the Use and Gratification Theory in the context of the Internet, three major Internet usage motives have been identified (Ko, Cho, & Roberts, 2005; Papacharissi & Rubin, 2000): (1) The social networking motive encourages users to construct new social connections so they can create interpersonal relationships. (2) The learning motive encourages users to acquire necessary or even unnecessary information from the Internet. (3) The hedonic motive encourages users to access the Internet for entertainment and relaxation purposes.

Because UGC-sharing in online communities aligns with the continuum of Internet usage, UGC-sharing motives are expected to be similar, in most cases, to Internet usage motives. However, UGC-sharing includes users' intentional participation by the creation or exhibition of personal content (Ko et al., 2005; LaRose, 2001). In other words, participation is the key point that differentiates UGC-sharing from traditional Internet usage. In this paper, we emphasize the centrality of 'participation' and its relationship with Situated Learning Theory (Lave & Wenger, 1991) because individuals develop their identities and practice them by participating in UGC communities.

Situated Learning Theory has emerged as a radical alternative to conventional cognitivist theories of knowledge and learning. It emphasizes the relational and structural aspects of learning, as well as the dynamics of identity construction (Handley, Clark, Fincham, & Sturdy, 2007). At its core, Social Learning Theory criticizes assumptions implicit in many conventional theories: (1) 'learning' represents the acquisition of objective knowledge and (2) learning is best achieved during educational/training sessions that remain separate from the settings in which that learning will be applied. In contrast to the cognitivist perspective, Situated Learning Theory considers learning and knowing processes integral to everyday practice in workplace, family, and other social settings. In Social Learning Theory, the focus shifts from decontextualized 'objective' knowledge to the accomplishment of knowing-in-action and knowing-in-practice. Lave and Wenger (1991) argue that participation is central to situated learning because individuals develop their identities and practices based on participatory opportunities made available to them. Participation is not simply an event. It involves the ways individuals understand, take part in, and subscribe to the social norms, behaviors, and values of the communities in which they participate.

Conceptually, UGC-sharing in online communities is similar to the participation described in Situated Learning Theory because UGC-sharing behaviors do not include simple and passive content consumption. Rather, they involve dynamic and active participation. Members upload personal content, communicate with other members, improve their capabilities, and develop themselves with respect to hedonic or utilitarian aspects in both action and practice. Finally, in the context of UGC-sharing, use and gratification evolve to become participation and gratification because of the upgraded three motives, based on participation that occurs in practice. Specifically, the social network motive can be interpreted as the UGC creator's motive to communicate with other users and the creator's motive to form closer relationships with other users by participating in UGC-sharing (socializing motive). In addition, the learning motive can encourage the UGC creator to obtain feedback and comments from other users, as well as to improve the quality of his/her own UGC (learning by doing motive). Finally, the hedonic motive can also be considered the UGC creator's motive to enjoy others' UGC, and, perhaps, even to please others with his/her personal UGC (entertaining motive). The current study proposes that the three motives involved in the participation and Gratification Theory can affect individuals' intentions to engage in UGC-sharing.

## 2.2. UGC reading intentions vs. sharing intentions based on the quality of other users' UGC

The quality of UGC posted in UGC communities is a critical factor that might affect community success and survival. Therefore, UGC community managers or service providers should focus their efforts on increasing their content's creative and explicit value (Kim et al., 2012). Current research focused on UGC has revealed that high-quality UGC tends to attract more users and increase particular websites' popularity (Feijoo, Maghiros, Abadie, & Gomez-Barroso, 2009; Hargittai & Walejko, 2008). Ryu, Kim, and Lee (2009) stated that UGC's emotional value will increase when members share higher-quality pictures.

An online community that contains and shares high quality content is more likely to be considered relevant when new members engage in self-enhancement by increasing their skills or expanding their human networks. According to self-enhancement theory, all individuals have the basic desire to enhance their self-esteem levels. Therefore, people may more frequently attempt to collect information that will exert positive influences. They may also attempt to find others who can exert positive influences (Dipboye, 1977). New members can be expected to prefer environments that might help them improve themselves in the areas of learning and social relations. Furthermore, new members may prefer to read high-quality UGC. This will attract many network members and enhance UGC's social value because of the connections made among various community members. New members might satisfy their hedonic motives when they read high-quality UGC (Cha, 2012; Kim et al., 2012). Thus, we propose that new members will be more likely to make continuous visits to this type of community. They might enjoy this UGC because the community will contain higher-quality UGC.

**H1.** When an online community increases the quality of its UGC, new members' UGC reading intentions will increase.

It can be relatively easy for new members to choose an online community if their sole purpose is to read UGC. However, if new members' purpose is to create and attempt to share their personal UGC, in all likelihood, new members will consider additional factors (e.g., current community members or current UGC quality) because UGC reflects each user's identity, skills, interests, and so on. If new members consider certain communities appropriate for UGC-sharing, then the quality differences between the quality of new member's UGC and current-posted contents – including the hedonic element, theme appropriateness, and artistic degree of completion – becomes the criteria to be used for self-evaluation.

Previous studies investigated the effects of gaps that exist between expected abilities and each individual's actual abilities on new members' behavior. According to Korman (2001), a self-enhancement motivational system is activated when individuals become aware of opportunities to achieve high-performance goals they hope to achieve. When individuals believe they lack the capabilities required to meet performance expectations, the self-protective motivation can be activated. All things being equal, individuals can engage in behavioral roles that maximize their senses of cognitive balance or consistency. In other words, individuals simultaneously consider both the benefits (social relations, learning, or pleasure) and costs (ignorance, self-esteem, potential injury) they can derive from activities.

Similarly, this situation applies to new members who visit particular online communities to initiate UGC-sharing. If all other circumstances are equal, new members will judge and anticipate the benefits and costs they could derive from UGC-sharing based on their examinations of the differences that exist between their per-

sonal UGC quality and the quality of contents already posted by those communities. In a superior quality community, in which current members' UGC quality is comparatively higher, new members will expect that they might enhance their skills. This would lead to the development of 'learning motive' opportunities provided by current community members and good 'socializing motives' for members who specialize in UGC creation. On the other hand, new members may struggle to develop relationships with current members because they recognize that gaps exist between their own and current members' levels of expertise. This could have negative impacts on individuals' self-esteem. In inferior communities, users can expect to network more easily. However, they may also discover that these communities offer limited opportunities to learn or develop UGC skills.

When we examine the costs and benefits new members might derive from visiting communities, we might expect that, in both superior and inferior communities, new members might decide the costs outweigh the benefits. This may occur because the costs, (e.g., limited opportunities to 'learn by doing' in inferior communities or difficulties they might experience 'socializing' in superior communities) can be grasped instinctively without requiring additional information. However, benefits (e.g., the ease with which they can 'socialize' in inferior communities or how easily they can 'learn by doing' from insiders in superior communities), are more uncertain until community participants' reactions become apparent. Korman (2001) revealed that work settings that generate self-enhancement motivations are settings in which individuals believe they can achieve positive goals. For new members who have limited information to confirm benefits, the highest UGC-sharing motivation will occur because expected costs will be minimized when new members close UGC quality gaps that exist between themselves and current community members. Moreover, when new members visit communities that are equivalent with respect to UGC quality (i.e., UGC quality gaps are small), in all likelihood, new members will believe that current community members will become more familiar with them and will have stronger intentions to interact. Figallo (1998) stated that interactivity and familiarity between members are strong factors that drive active community participation. New members who encounter higher familiarity and stronger interactivity in equivalent sites are more likely to achieve the 'socializing motive' and 'learning motive.' In addition, Situated Learning Theory (Lave & Wenger, 1991) suggests that the contextual fit, in which an individual becomes cognitively and psychologically involved in a suitable context, can contribute that individual's more effective and efficient participation.

With respect to hedonic need fulfillment, a significant number of studies consistently discovered that relaxation, enjoyment, pleasure, and entertainment are the primary motives that encourage television viewing (Rubin, 1984) and frequent movie-viewing (Austin, 1986). Cha (2012) revealed that online users who visit video-sharing websites display dominant hedonic motives for video consumption, rather than video-sharing. Thus, hedonic needs are relatively weaker for UGC-sharing intentions, rather than for UGC-reading intentions. Ultimately, the current study does not consider the benefits of 'hedonic need fulfillment' to be important for UGC-sharing because this need can be fulfilled more powerfully when users read content.

**H2.** New members' UGC-sharing intentions can be maximized when quality gaps that exist between insiders' UGC and new members' UGC are minimized.

**H2a.** New members' UGC-sharing intentions will decrease when their personal UGC quality exceeds the current community members' UGC quality.

**H2b.** New members' UGC-sharing intentions will decrease when their personal UGC quality is inferior to current community members' UGC quality.

### 2.3. The role of insiders' feedback in the clear revelation of benefits

New members hope to acquire necessary information from insiders so they can more easily become members of certain organizations. Information provided by insiders is both information-based (directly goal-oriented), as well as friendship-based (relationship-oriented) (Morrison, 2002). Thus, this information satisfies new members' personal motivations to learn or their social motivations to develop relationships. According to Social Learning Theory, new members can derive very important educational benefits when they observe organizational insiders' behaviors (Griffin, Colella, & Goparaju, 2000). Therefore, the most significant condition that might determine new members' successful socialization depends on how well new members can develop relationships with organizational insiders (e.g., co-workers, supervisors, or mentors) (Louis, 1980).

Recently, the use of feedback has been widely applied in web-sites, including online shopping mall as well as online communities (Park, Lee, & Han, 2007; Park & Park, 2013). Feedback, twitter, and even knowledge communities play an important role in cue-inferring, information-sharing, and relationship-building among members (Huh & Lee, 2010; Kim et al., 2012; Nam, Son, & Lee, 2011). Similar to the types of information provided by traditional organizational insiders, online feedback can be categorized into two types. The first type includes information-based feedback, technical or numeric information, and rational (more objective) evaluations of content that provides useful information or tips. The second type includes friendship-based feedback, personal feelings, or emotional (more subjective) content evaluations that serve as foundations upon which members can build emotional connections.

Even though new members cannot obtain either type of feedback directly from current community members prior to sharing their personal UGC, they can anticipate the types of feedback they might obtain after they share UGC by examining existing feedback. This might change new member's UGC-sharing intentions because they can confirm whether they might be able to fulfill their personal motives. If more information-based feedback is available, rather than friendship-based feedback, in all likelihood, new members might believe a particular community is an information-based community that might help them achieve 'learning motives.' If more friendship-based feedback is available, rather than information-based feedback, in all likelihood, new members might believe a particular community is a friendship-based community that might help them achieve 'socializing motives.'

#### 2.3.1. Information-based feedback

Information-based feedback provided by organizational insiders can be related to organizational knowledge, task mastery, and role clarity (Morrison, 2002). This type of feedback might relate to technical advice or tips that can help new members develop better content within UGC environments. Therefore, information-based feedback may contribute to new members' fulfillment of 'learning motives.' Information-based feedback might also help new members become accustomed to organizations (Ashford, 1986; Fedor, Rensvold, & Adams, 1992; Morrison & Cummings, 1992; Tuckey, Brewer, & Williamson, 2002; Vancouver & Morrison, 1995).

Within the UGC context, new members can compare the quality of their personal UGC with the quality of current community members' UGC. New members can accept information-based feedback

solely provided by insiders who can produce higher-quality UGC as valuable feedback. This is similar to the fact that individuals who work in traditional organizations prefer that supervisors provide information-based feedback, rather than peers (Bauer, Morrison, & Callister, 1998).

However, individuals may refuse to engage in information-seeking when insiders provide feedback that contains negative evaluations. Morrison and Cummings (1992) stated that, even though feedback might prove useful, when messages are expected to be rather negative, individuals might refuse to engage in feedback-seeking. When individuals who engage in feedback-seeking behaviors determine that threats to their egos and public images are possible, they may terminate those feedback-seeking behaviors and engage in different tactics to obtain information (Ashford & Northcraft, 1992; Fedor et al., 1992; Northcraft & Ashford, 1990). These factors reveal the possibility that new members may hesitate to share their personal UGC in superior UGC communities because they fear they might receive negative feedback.

The above-mentioned situation could be determined by the extent to which new members believe organizations are important. Crocker and Wolfe (2001) divided emotions related to self-worth into global and domain-specific categories. Their results revealed that, if a subject is unrelated to a contingent domain that is directly connected to an individual's self-esteem, the failure that occurs in that domain will not exert impacts on the individual's global self-worth. In other words, an evaluation that focuses on individual's performance that does focus on a contingent domain will not exert significant influence on that individual's global self-esteem (Wood, 1989). When we consider general UGC communities in which individuals participate voluntarily without expecting any specific rewards, the possibility exists that UGC communities do not function as contingent domains for individuals who participate in those communities. Therefore, new members of superior UGC communities might underestimate negative aspects (e.g., damage to self-esteem that results from negative feedback). They might strongly estimate positive aspects (e.g., 'learning motives').

In contrast, with respect to inferior UGC communities, no positive aspects of 'learning motives' can be achieved by the provision of information-based feedback. However, negative aspects can develop from the provision of negative feedback. New members might not be able to accept negative information-based comments provided by individuals considered inferior users. Therefore, in inferior communities, new members might be less inclined to participate and share their personal UGC. In summary, with respect to UGC communities in which information-based feedback predominates, in all likelihood, new members will demonstrate stronger UGC-sharing intentions in superior UGC communities, rather than in inferior UGC communities.

**H3.** If feedback is relatively information-based, new members will demonstrate strong UGC-sharing intentions in superior UGC communities, rather than in inferior UGC communities.

#### 2.3.2. Friendship-based feedback

In general, friendship-based feedback involves social integration and organizational commitment (Morrison, 2002). For members to settle successfully into organizations, intimacy with co-workers, supervisors, and mentors is very important (Louis, 1980). Trust, supportiveness, and senior-junior relationships can be closely linked to the development of newcomers' self-esteem and friendship networks (Korman, 1970; Pierce & Gardner, 2004). With respect to online communities, when friendship-based feedback is provided, these relationships might also be valid. Friendship-based feedback exerts positive influences on new members' socialization.



In UGC communities, friendship-based feedback can function as cues that signal the degrees of closeness possessed by current community members. Feedback can also determine the degrees of openness current community members might display towards the development of social relationships with new members. Once they recognize that current community members have strong interactions with one another, new members may infer that they could also have close interactions. They realize that, similar to traditional organizations, they might increase their social networks and develop intimacy with current members (Chao, Walz, & Gardner, 1992). In contrast to these positive aspects, new members may hesitate to interact with current community members because they fear they will not be invited to become group members. These perceptions might be even more severe for new members of superior UGC communities, rather than for members of inferior communities, because new members do not possess sufficient skills or knowledge to attract group insiders' attention. Ashford and Cummings (1983) suggested that individuals might not initiate overt feedback-seeking behaviors when they realize that impression management costs are high.

Therefore, it can be natural for new members to hesitate to participate in feedback-seeking activities (i.e., UGC-sharing) in superior UGC communities. Rather than engaging in direct feedback-seeking activities, new members may find other ways to communicate with insiders (e.g., chatting or replying to other feedback). They might just remain content watchers in superior UGC communities. In contrast, with respect to inferior UGC communities, new members can create good impressions with insiders by participating and exhibiting their comparatively better personal UGC. This may help new members develop intimate relationships. It may also help them discover relatively easier ways to fulfill 'socializing motives' (Ashford & Northcraft, 1992). Thus, we hypothesize that new members' UGC-sharing intentions will be stronger in inferior UGC communities when friendship-based feedback is provided.

**H4.** If feedback provided in online communities is relatively friendship-based, new members will demonstrate stronger UGC-sharing intentions in inferior UGC communities, rather than in superior UGC communities.

### 3. Experiment 1: UGC-reading intentions vs. UGC-sharing intentions based on the existence of UGC quality gaps

#### 3.1. Methods

##### 3.1.1. Design, subjects, and experimental system

The purpose of Experiment 1 was to test Hypotheses 1 and 2 (2a and 2b). We chose UGC quality gaps (inferior, equivalent, or superior) as the independent variables. Students who planned to travel during vacation were chosen as subjects. The researcher explained that a UGC community site that would enable social exchanges between users while they shared travel photos was being developed. The researcher attracted voluntary participation from subjects by providing membership benefits and offering five dollar rewards when the site opened in the future. Therefore, 39 males (65%) and 21 females (35%) participated in the experiment. Most subjects (approximately 98%) had already shared personal UGC in online communities. None of the subjects possessed specialized photography training. Subjects were asked to visit and browse the virtual UGC community for specified amounts of time. They were asked to evaluate the extent to which they would be willing to share their travel photos. To conduct the experiment, three virtual UGC communities that featured photos of different qualities (High, Medium, and Low) were developed. Subjects were asked to choose a travel

photo to post from five medium-quality photos. Each subject chose one travel photo that had been created by the use of a technique similar to his/hers and was asked to consider it as his/her own. The UGC community targeted for evaluation was chosen at random. Each UGC employed during the experiment was limited to a photo of the Eiffel Tower, which is located in France. This occurred for three reasons. First, the Eiffel Tower is a well-known French landmark. Therefore, most participants were aware of it. This controlled possible effects related to location familiarity difference. Second, Photos were relatively more familiar to participants than movie clips with respect to the degrees of required techniques. This reduced the unintended effects of participant expertise in taking photographs. Finally, photos possess clearer quality classifications, rather than movie clips. For example, some film-related UGC could be felt as having good quality due to the funny storyline, rather than their skillfully created scenes. By asking subjects to focus on photographs of the Eiffel Tower, we were able to employ clearer criteria to classify UGC quality.

Each virtual UGC community appeared on one website that included two main web pages. The first webpage included five small-sized photos. Participants could click on each photo to zoom in on it. When subjects clicked on photos, each photo and five feedback types were magnified to a larger size. This virtual community was similar to real UGC communities (e.g., [www.photopoints.com](http://www.photopoints.com)).

##### 3.1.2. Experimental procedures

The experimental procedure is illustrated in Fig. 1. First, each subject who agreed to participate in the experiment was led into a 5 m × 5 m room. Each subject was seated at a desk that contained a laptop. Five photos of the Eiffel Tower were loaded onto the laptop's desktop, along with an icon that was connected to the virtual UGC community. The experiment controller provided background information that a UGC community based on the theme of sharing travel photos was being developed. The controller explained that each subject would be asked to evaluate whether the UGC community was attractive. The experiment controller asked each subject to choose a photo that closely resembled his/her photograph technique from five photos that appeared on the desktop. Each subject was asked to assume that the chosen photo was his/her own and would be shared. Then, the experiment controller asked each subject to enter the UGC community. Each subject was informed that the UGC community contained other individuals' pictures, as well as feedback provided by current community members. Each subject was given three minutes of observation time once he/she entered the UGC community. After three minutes passed, the screen automatically changed to the site evaluation screen. The site evaluation screen displayed the 'own travel photo' previously chosen by each subject. Each subject was asked to answer questions located at the bottom of the evaluation screen. These questions referred to UGC-reading intentions, UGC-sharing intentions, manipulation checks, control checks, and demographic information.

##### 3.1.3. Independent variables (UGC quality gaps)

This research employed three different virtual UGC communities that contained high-, medium-, or low-quality UGC content. To maintain quality, professional photographers' photos were used for the high-quality UGC community. Amateur photographers' photos considered adequate with respect to focus and exposure were used for the medium-quality UGC community. Amateur photographers' photos considered problematic with respect to focus and exposure were used for the low-quality UGC community.

Each subject was provided with an additional medium-quality photo. Each subject was asked to imagine that this UGC was a picture they themselves had taken. To make the final selection of a medium quality UGC that each subject would consider their 'own

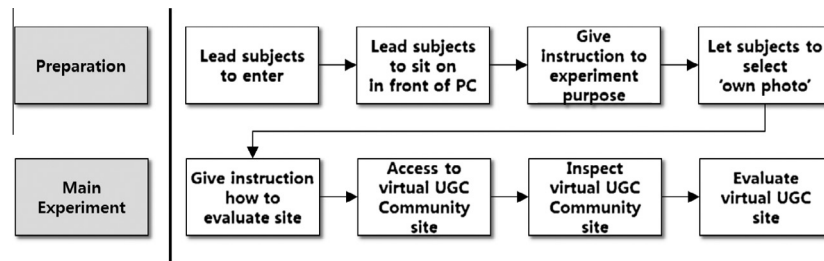


Fig. 1. The procedure of experiment 1.

photos', we initially chose twelve subjects and conducted a focus group interview. These subjects were not included in the actual experiment.

UGC quality gaps were manipulated with respect to the differences in quality that existed between subjects' 'own pictures' and pictures included in the virtual UGC community. When the UGC quality of photos included in the virtual UGC community was better, we described that community as a 'superior UGC community'. When the UGC quality of the virtual community was worse, we described it as an 'inferior UGC community'. If the UGC quality was similar, we described that community as an 'equivalent UGC community'.

#### 3.1.4. Dependent variables

We measured UGC-sharing intentions on 7-point numeric scales based on questions that explored subjects' personal preferences (e.g., "I would like to share my pictures in the suggested UGC community"). Questions that explored subjects' personal desires included statements such as "I would share my pictures in the suggested UGC community continuously." UGC-reading intentions were measured by the use of the same scales noted above that were based on questions that explored subjects' personal preferences (e.g., "I would like to read the UGC of this community's members"). Questions that explored subjects' personal desires included statements such as "I would read the UGC of this community's members continuously."

#### 3.1.5. Control variables

We controlled personal UGC-sharing experiences and picture-related professionalism. No significant differences appeared to exist between these two variables ( $F < 1$ , ns). In addition, differences that occurred between gender and age ( $F < 1$ , ns), as well as other personal characteristics, were not statistically significant ( $F < 1$ , ns).

### 3.2. Results

#### 3.2.1. Manipulation checks

Initially, we averaged subjects' responses to the three items designed to check their perceptions of UGC quality in the target community. An ANOVA analysis indicated the presence of the main effect of UGC quality ( $F(2, 57) = 48.89$ ,  $p < .01$ ). Planned contrasts revealed that subjects exposed to the 'superior UGC community' believed UGC quality (the mean of the superior UGC community = 5.78) was greater than the UGC quality of any other community (mean of equivalent UGC community = 3.82,  $F(1, 57) = 35.28$ ,  $p < .01$ ; mean of inferior UGC community = 2.53,  $F(1, 57) = 96.37$ ,  $p < .01$ ). In addition, subjects exposed to the 'equivalent UGC community' believed the UGC quality was greater than the UGC quality of the 'inferior UGC community' ( $F(1, 57) = 15.02$ ,  $p < .01$ ).

To verify that subjects believed the quality of their personal UGC was similar to the UGC quality of the 'Equivalent' group, we performed paired sample *t*-tests. Subjects exposed to the 'superior UGC community' believed the UGC quality of the superior UGC community (the mean of the superior UGC community = 5.78) was greater than the quality of their personal UGC (the mean of their personal UGC = 4.35,  $t(19) = 3.46$ ,  $p < .01$ ). Subjects exposed to the 'inferior UGC community' believed the UGC quality of the inferior UGC community (the mean of the inferior UGC community = 2.53) was lower than the quality of their personal UGC (the mean of their personal UGC = 4.71,  $t(19) = 5.28$ ,  $p < .01$ ). Finally, subjects exposed to the 'equivalent UGC community' believed the UGC quality of the equivalent UGC community (the mean of the equivalent UGC community = 3.82) was statistically insignificant to the quality of their personal UGC (the mean of their personal UGC = 3.88,  $t(19) = 0.14$ , ns). In contrast, no differences in subjects' perceptions of their personal UGC occurred among the groups ( $F(2, 57) = 2.27$ , ns).

#### 3.2.2. Hypothesis testing

A multivariate analysis of variance was performed on reading intentions and sharing intentions. Then, we conducted two one-way ANOVA analyses on two dependent variables to test hypotheses 1 and 2 (Table 1). UGC-reading intentions were measured as two items. The results were averaged and used for the analysis. Planned contrasts revealed that subjects' intentions to read current community members' UGC in the 'superior UGC community' (mean = 5.05) were greater than in any other conditions (mean of 'equivalent UGC community' = 4.30,  $t(57) = 2.24$ ,  $p < 0.05$ , mean of 'inferior UGC community' = 3.15,  $t(57) = 5.68$ ,  $p < 0.05$ ). In addition, subjects' intentions to read current community members' UGC in the 'equivalent UGC community' were greater than subjects' intentions to read current community members' UGC in the 'inferior UGC community' ( $t(57) = 3.44$ ,  $p < 0.05$ ). As shown in Fig. 2, our hypothesis 1 was accepted.

Additionally, UGC-sharing intentions were measured as two items. The results were averaged and used for the analysis. Planned contrasts revealed that subjects' UGC-sharing intentions in the 'equivalent UGC community' (Mean = 5.03) were greater than in any other conditions (Mean of 'superior UGC community' = 3.95,  $t(57) = 2.02$ ,  $p < 0.05$ , Mean of 'inferior UGC community' = 3.63,  $t(57) = 2.63$ ,  $p < 0.05$ ). No differences were apparent in new members' UGC-sharing intentions between the 'superior UGC community' and the 'inferior UGC community' ( $t < 1$ , ns). As shown in Fig. 2, our hypotheses 2a and 2b were accepted.

Table 1  
ANOVA on reading intention and sharing intention.

	Reading intention	Sharing intention
	<i>F</i> (sig.)	<i>F</i> (sig.)
Perceived UGC quality	16.39 ( $p < .01$ )	3.775 ( $p < .03$ )

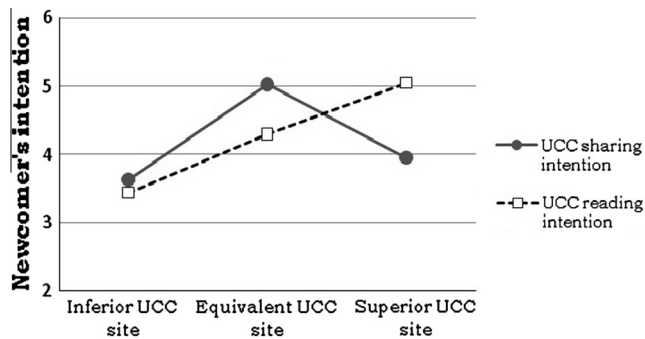


Fig. 2. The effect of UGC quality gap on UGC sharing intention.

### 3.3. Discussion

The results of Experiment 1 demonstrate that a matching effect occurred between the new members' personal UGC quality and current community members' UGC quality. Specifically, as we hypothesized, Experiment 1 revealed that new members demonstrated increased UGC-reading intentions as the community's UGC quality improved. However, with respect to UGC-sharing intentions, new members demonstrated the strongest UGC-sharing intentions when their UGC quality was equivalent to community insiders' UGC quality. In addition, the strength of new members' UGC-sharing intentions weakened when UGC quality gaps expanded, regardless of those gaps' directions.

## 4. Experiment 2: the moderating effects of feedback on UGC-sharing intentions

### 4.1. Methods

#### 4.1.1. Design, subjects, experimental system, and procedure

The purpose of Experiment 2 was to test hypotheses 3 and 4. This experiment focused on two types of communities: the inferior UGC community and the superior UGC community. The feedback type was added as an independent variable in Experiment 2. Thus, we employed a 2 (UGC quality gap: superior vs. inferior)  $\times$  2 (feedback type: information-based vs. friendship-based) between-subject factorial design. A total of 72 students voluntarily participated. Among those students, 48 were males (67%) and 23 were females (33%). Subjects received the same rewards that subjects received in Experiment 1. Experiment 2 was conducted in a different location. Therefore, subjects who participated in Experiment 1 were excluded from Experiment 2. Most subjects (approximately 99%) had experienced UGC-sharing in online communities. None of the subjects had specialized training in photography.

All participants visited the virtual UGC community (see Fig. 3) that contained the same photos used in Experiment 1. However, in the virtual UGC community used in Experiment 2, we manipulated the feedback posted by current community members. In other words, the same number of users' feedback types were used in Experiment 1 (informative or friendship-based) to ensure the site did not appear to be solely informative-based or

friendship-based. For Experiment 2, sites that solely contained informative-based feedback or friendship-based feedback were made available based on subjects' purposes.

Subjects were randomly assigned to each condition (i.e., inferior UGC community that contained information-based feedback; inferior UGC community that contained friendship-based feedback; superior UGC community that contained information-based feedback; and superior UGC community that contained friendship-based feedback).

The experimental procedure employed in Experiment 2 was identical to the procedure employed in Experiment 1.

#### 4.1.2. Independent variable (feedback type)

Individual UGC content employed in this experiment contained current community members' feedback. Feedback was categorized into two types: information-based or friendship-based (Morrison, 2002). Subjects were provided with a UGC community that contained either information-based or friendship-based feedback. We collected real information-based feedback related to organizational knowledge, task mastery, or role clarity, as well as real friendship-based feedback related to social integration or organizational commitment (see Table 2).

#### 4.1.3. Independent variables (UGC quality gaps)

Experiment 2 focused solely on conditions in which quality gaps existed (inferior UGC community; superior UGC community). Participants were exposed to photos and feedback contained in either the superior quality or the inferior quality communities. Quality gaps were manipulated identically to the manipulation performed in Experiment 1. The medium-quality photo of the French Eiffel Tower was employed as each subject's personal photo. Community insiders' photos were either low-quality or high-quality photos.

#### 4.1.4. Dependent variables and control variables

UGC-sharing intentions were used as dependent variables. The same control variables were used as those employed in Experiment 1.

### 4.2. Results

#### 4.2.1. Manipulation checks

Initially, we averaged subjects' responses to the three items designed to check their perceptions of the target community's UGC quality. An ANOVA analysis indicated the presence of the main effect of UGC quality ( $F(1, 70) = 90.63, p < .01$ ). Subjects exposed to the 'superior UGC community' believed UGC quality was greater in comparison with subjects exposed to the 'inferior UGC community' (mean of superior UGC community = 5.20, mean of inferior UGC community = 2.84).

To check the manipulation of feedback types, each variable was measured by the use of two items. Participants reported that information-based feedback was more informative than friendship-based feedback (mean of information-based feedback = 4.44, mean of friendship-based feedback = 2.54,  $F(1, 70) = 53.31, p < .01$ ). On the other hand, participants reported that friendship-based feedback was more friendly than information-based feedback (mean of friendship-based feedback = 4.60, mean of information-based

Table 2  
Examples of information-based vs. friendship-based feedback

Information-based feedback	Friendship-based feedback
For expressing the color of dawn correctly, white balance should be adjusted You needed to choose longer shutter speed for expressing the speed of cars	I've had a beer over there!! Why did not you let me go together I feel I am in Paris just walking through the streets with you





Fig. 3. Virtual UGC community for the experimental 2 (high quality photo case).

Table 3

The ANOVA analysis results of experiment 2.

Source	F	Sig.
UGC quality gap	0.32	0.57
Feedback type	0.03	0.87
UGC quality gap $\times$ feedback type	10.41	0.01

feedback = 3.25,  $F(1, 70) = 53.31, p < .01$ ). Finally, all manipulations were successful.

#### 4.2.2. Hypothesis testing

We conducted a two-way ANOVA analysis (UGC quality gap  $\times$  feedback type) to test hypothesis 3 and 4. UGC-sharing intentions were measured as two items. The results were averaged and used for the analysis. Table 3 shows the results of the ANOVA test. No significant main effect was determined. However, the interaction effect of the UGC quality gap  $\times$  feedback type was significant ( $F(1, 68) = 10.41, p < .01$ ). The interaction effect indicated that the effect of information-based feedback on UGC-sharing intentions was stronger in the superior UGC community (mean = 4.83), rather than the inferior UGC community (mean = 3.25,  $F(1, 68) = 7.19, p < .01$ ). However the effect of friendship-based feedback was stronger in the inferior UGC community (mean = 4.53), rather than the superior UGC community (mean = 3.42,  $F(1, 68) = 3.54, p < 0.05$ ). Thus, our hypotheses 3 and 4 were accepted.

More interestingly, planned contrasts revealed that, for the inferior UGC community, friendship-based feedback (mean = 4.53) was more effective for UGC-sharing intentions, rather than for information-based feedback (mean = 3.25,  $t(68) = 2.163, p < 0.03$ ). On the other hand, for the superior UGC community, information-based feedback (mean = 4.83) was more effective for UGC-sharing intentions, rather than for friendship-based feedback (mean = 3.42,  $t(68) = 2.399, p < 0.02$ ). This result revealed that, depending on the levels of UGC quality in UGC communities, UGC community members preferred different feedback (see Fig. 4).

In summary, the results of Experiment 2 revealed that, when community feedback was information-based, new members demonstrated stronger UGC-sharing intentions in the superior UGC

community, rather than in the inferior UGC community. On the other hand, when community feedback was friendship-based, new members demonstrated stronger UGC-sharing intentions in the inferior UGC community, rather than in the superior UGC community. Additionally, UGC members in the inferior community preferred friendship-based feedback, rather than information-based feedback. UGC members in the superior community preferred information-based feedback, rather than friendship-based feedback.

#### 4.3. Discussion

As we expected, feedback provided by community members affected UGC-sharing intentions. UGC quality gaps also affected UGC-sharing intentions. For example, new members who received information-based feedback demonstrated stronger UGC-sharing intentions in the superior UGC community (Hypothesis 3). In contrast, new members who received friendship-based feedback demonstrated stronger UGC-sharing intention in the inferior UGC community (Hypothesis 4). This result proves that the users who participate in UGC-sharing possess specific motivational factors to participate, such as desires for 'learning' and 'intimacy'. In addition, based on the type of feedback provided by the community, the possibility exists to measure the fulfillment of these motives.

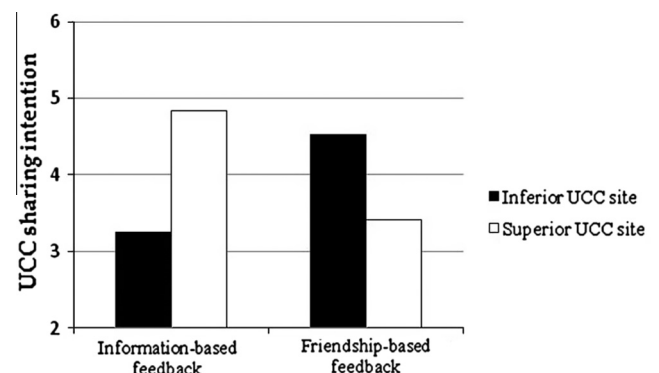


Fig. 4. The effect of UGC quality gap  $\times$  feedback type on UGC sharing intention.



These measurements can lead to new members' participation in actual sharing activities.

## 5. Conclusions

This research demonstrates that new members analyze the benefits and costs in every decision step. They prefer an equivalent UGC community as the type of community in which they will share their UGC when they cannot figure out the benefits because they lack information. However, by investigating the types of feedback provided, new members can switch their preferences to superior UGC communities to obtain learning opportunities and to inferior UGC communities to obtain social relationships. This study is helpful for researchers because it can help them understand how the elements of a UGC community – UGC quality and feedback – can affect new members' behaviors. In addition, the results can help community managers develop differentiated approaches.

Three major theoretical implications emerged from this research. First, based on the member life-cycle perspective, this research studied factors what new members consider when they decide whether to share personal UGC content. In particular, this study verified the existence of interrelationships between new members' personal interests and environmental elements contained in each community (i.e., UGC content quality and feedback types). Thus, the study offers high theoretical value. Second, this research verified that self-esteem is a critical factor for new members with respect to their UGC-sharing intentions. It also demonstrated that self-esteem is not a critical factor for new members' UGC-reading intentions. With respect to UGC-reading intentions, the results revealed that UGC-reading intentions increased as the content quality of UGC communities improved. This result can be explained by Self-Enhancement Theory (Dipboye, 1977). However, because UGC reflects each creator's capabilities and efforts, users who hope to share their personal UGC can be concerned about others' responses to and evaluations of their personal UGC. Self-protective motivation theory (Korman, 2001) explains that new members' UGC-sharing intentions will increase until the content quality of a UGC community becomes less-sophisticated than the quality of the new members' UGC. In cases in which the content quality of UGC communities is better than the quality of new members' UGC, then new members' UGC-sharing intentions will decrease.

Finally, we expanded the Use and Gratification Theory into a UGC-specialized theory – Participation and Gratification – by examining the unique characteristics of UGC-sharing. Based on the Participation and Gratification Theory, this study clarified that new members proactively select appropriate communities based on their own motives. In each case, they did not passively adapt their needs to the characteristics of particular communities. To define new members' motives, we redefined and reapplied the term, Internet usage motives, to include social networking, learning, and hedonism motives. The social networking motive for UGC-sharing is based on users' intentions to communicate with other users and to form closer relationships with other users by engaging in personal UGC-sharing. In addition to text, users seek to use UGC as a communication tool or a language they can employ to express themselves (socializing motive). The learning motive for UGC-sharing is based on users' intentions to obtain others' feedback and comments and to improve the quality of their personal UGC (learning motive). Finally, the hedonism motive for UGC-sharing is based on users' intentions to enjoy others' UGC and to satisfy others by sharing their personal UGC (entertaining motive).

Because it focused on two motives (socializing, learning), this study demonstrated the effects of communities' content quality and feedback types on new members' UGC-sharing intentions. In

cases in which new members visited communities that provided friendship-based feedback, the socializing motive was stronger than the learning motive. Thus, new members preferred to participate in inferior communities, rather than superior communities. In cases in which new members visited communities that provided information-based feedback, the learning motive was stronger than the socializing motive. Thus, new members preferred to participate in superior communities, rather than inferior communities.

This study offers several practical implications. Most importantly, the results can help UGC community managers understand Internet users' UGC-sharing motives. Managers can establish appropriate strategies to encourage new members' participation. In addition to the feedback system, community managers must develop another system to stimulate UGC-sharing motives. Perhaps, a group of experts could provide specialized feedback that targets the learning motive and provide supplements to information-based feedback offered by insiders. Because of this strategy, regardless of their UGC quality, new members could trust feedback and fulfill their learning desires. This will encourage them to engage in more active UGC-sharing. By focusing on the socializing motive, community managers can offer new members chatting or messenger services to encourage their interactions with current community members. In addition, because new members feel more comfortable when they meet community members who possess similar expertise levels, community managers should divide their communities based on members' UGC quality levels. Based on this strategy, new members can begin their activities in subgroups that match their interests and UGC quality levels. To fulfill both motives, communities must develop as they grow. When communities are in their beginning stages, community managers must emphasize friendship-based interactions. Then, as communities develop with respect to their content, community managers must increase the number of information-based interactions to encourage new members' motivations to learn.

This study has several limitations. The experimental virtual community was restricted to a UGC community that maintained a theme related to travel photographs. However, movie-based UGC (e.g., youtube.com) could offer different characteristics than the travel photograph-themed UGC community offered in this study. Another limitation is related to the use of virtual UGC communities in our experiments. Although we attempted to create virtual communities as identical as possible to real communities, the possibility exists that participants had different perceptions of those communities. In addition, because the experiment was performed exclusively on Korean UGC users, limitations may apply to the generalization of this study's results. Despite these limitations, this study contributes to our understanding of Internet users' behaviors by revealing Internet users' perceptions of UGC quality gaps and the effects of feedback provided by current community members.

This research also creates future research opportunities. For example, future studies could examine the effects of the attitude differences that subjects could have according to UGC domains. When individuals judge their performance in specific fields, they unconsciously are controlled by the ways those specific fields relate to their self-esteem (Crocker & Wolfe, 2001). Therefore, a new insight could be obtained if the experiment was progressed with subjects whose effects of self-esteems are different. Another potential area for research would involve an investigation of Internet users' post-entry behaviors that occur after they share their initial UGC in particular communities. The results of our research revealed that new members tend to choose UGC communities that contain low-quality content when friendship-based feedback is provided. However, we predict this result will change when new members receive friendship-based feedback related to their personal UGC. If this prediction is proven in a future study,

UGC community managers will be able to suggest more detailed, member-specific strategies.

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