Who’s Pulling the Strings? The Motivational Paths from Marketer Actions to User Engagement in Social Media

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This Version
December 2018
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Abstract

**Purpose** — Firms increasingly rely on content marketing to trigger user engagement in social media brand communities. The authors examine how three generic types of marketer-generated content (affiliative, injunctive, and utilitarian content) drive user engagement by considering distinct motivational paths and the role of users’ preference for intimate (vs. broad) social networks.

**Design/methodology/approach** — The authors conduct a field survey and a scenario experiment among social media users across different brands from three different product categories. They examine the impact of marketer-generated content on user engagement while considering the moderating role of network intimacy (i.e., the mutual confiding within a user’s social network in terms of small social circles) and the mediating role of user motivations (i.e., autonomous vs. controlled motivation for community membership).

**Findings** — The findings show that affiliative content (i.e., content that highlights shared values) drives user engagement through autonomous motivation, and utilitarian content (i.e., content that highlights tangible benefits) drives user engagement through controlled motivation. Notably, injunctive content (i.e., content that asks for specific behavior demanded from users) is not a promising instrument to increase user engagement in social media brand communities when not targeted correctly.

**Research implications** — The authors link three generic content types derived from literature on communal systems to user engagement, demonstrate the motivational underpinnings of their translation into engagement behavior, and show that network intimacy
can explain why the same content type can impact user engagement through two motivational paths.

**Practical implications** — The authors present three types of content that marketers can craft to trigger users to engage with a brand’s social media community and show when this content is most effective and why. By examining the moderating role of network intimacy, this research aims at providing targeting implications to social media marketers.

**Originality/value** — This research provides new insights on the effectiveness of marketer-generated content. The authors reveal two motivational paths that compete in explaining the overall effectiveness of different types of marketer-generated content to fuel user engagement. We further demonstrate that these relationships depend on the intimacy of a user’s circle of online friends.

**Keywords** — User engagement, Social media, Marketer-generated content, Self-determination theory, Network intimacy

**Paper type** — Research paper
Introduction

User engagement—an individual’s behavioral manifestation toward a brand (van Doorn et al., 2010)—is the lifeblood of social media brand communities (e.g., Facebook brand pages) and an increasingly important driver of firm performance (Schau et al., 2009, Manchanda et al., 2015). Firms such as American Express even view user engagement in social media as most imperative for managing successful customer relationships (Litster, 2011). Firms therefore spend substantial amounts on crafting content (marketer-generated content, MGC) to persuade users to engage in social media (e.g., by posting, liking, or sharing of content on the brand’s social media site). Indeed, the majority of firms increased their budgets for social media content marketing by more than 10% in 2017 (Salesforce, 2017). These increased efforts, however, contrast with the fact that 90% of all users on social media brand sites are lurkers, that is they do not actively engage on those sites (Little, 2015). The key challenge for marketers thus is to become more effective in using MGC to turn lurkers into active engagers.

Prior literature on social media content marketing has focused on how different content characteristics relate to user responses such as comments or likes in Facebook. For instance, while some prior research recommends to promote contests or videos in MGC as they receive more likes (de Vries et al., 2012) other studies suggest to use less emoticons as they reduce the number of likes and comments (Lee et al., 2018). Thus, although prior research is helpful in providing “push-button” toolkits for combining different content characteristics (de Vries et al., 2012, Lee et al., 2018), it does not explain why MGC motivates users to engage in social media communities. Specifically, prior research has left three critical blind spots relevant for this research: First, it remains unclear what generic types of messages marketers
can employ to motivate community engagement. Second, marketers must know which recipients are most responsive to those MGC types. Third, as marketers want to effectively trigger users to participate in the community, it is crucial to understand the motivational mechanisms set in motion through different message types (Hammeci et al., 2015, Bateman et al., 2011).

Marketers need to understand which, when and how different MGC types drive user engagement (Bowden, 2016). Thus, the objectives of this research are to: (1) examine the differential engagement impact of distinct MGC types, (2) understand the role of users’ preference for intimate (vs. broad) social networks for the effects of MGC on user engagement, and (3) understand the role of motivational processes in the relationship between MGC and user engagement.

To tackle these objectives, we examine the relationships between three generic MGC types and user engagement. We build on literature concerned with behavioral goals in collective systems, such as communities, (e.g., Knoke, 1988) to derive the focal MGC types. First, we focus on affiliative content, which highlights affective bonding among brand community users (e.g., Schau et al., 2009). For example, MGC could feature a story that represents a typical brand experience when consuming the focal product, which could “nudge” users into sharing their own brand stories. Second, we consider injunctive content, which instructs users to engage in a particular type of behavior (e.g., Garnefeld et al., 2012). For instance, MGC could remind users that they have benefited from contributions by other community members to encourage them to post their own content. Third, we examine utilitarian content that highlights tangible benefits to oneself (e.g., Sun et al., 2017) like when
marketers use MGC to encourage users to provide product feedback in return for a sweepstake participation.

Next, how well a user is connected in social media plays a central role in guiding marketers’ content marketing efforts as they enable them to disseminate and target their content (Lee et al., 2018). For instance, on Facebook, marketers can target campaigns to friends of their brand page fans to expand the organic reach of their content (Stephen et al., 2015). Building on the literature that points to the relevance of being “closely connected” for the impact of marketing communications on user behavior in social media (e.g., Sun et al., 2017, Weiger et al., 2018, Hoffman et al., 2017) we account for the moderating role of network intimacy—the mutual confiding within a user’s social network (Granovetter, 1973)—in the relationship between MGC and engagement.

We further enrich the theoretical argument by building on self-determination theory (SDT; Deci and Ryan, 2002). In a nutshell, SDT serves to open the black box of how MGC is triggering engagement. It helps to identify the user motivations which marketers must address with MGC and which in turn drive engagement behavior. Specifically, we argue that depending on the perceived MGC and their network, users construe their community membership as self-determined (autonomous motivation) versus non-self-determined (controlled motivation), which has unique implications for their engagement.

We contribute to research in several ways because our study shows that the strength of the effect of three MGC types on user engagement depends on the recipient’s preference for intimate (vs. broad) social networks and the specific motivational path taken. In sum, we differentiate three generic content types derived from literature on communal systems, examine the motivational underpinnings of their translation into engagement behavior.
(Brodie et al., 2011, van Doorn et al., 2010), and consider network intimacy as a moderating netnographic characteristic in this relationship. Notably, a user’s network intimacy helps explain why the same type of MGC can impact user engagement through two motivational paths. This finding supports social media marketers in deciding which type of MGC should be targeted to which community users.

**Theoretical Background**

We draw on the theoretical advancement in social media research and on the SDT. While the former is decisive for describing MGC and for identifying the role of network intimacy in social media, the latter helps explain the motivational processes that underlie MGC’s effects on engagement.

*Foundations of social media content marketing*

*Marketer-generated content.* In social media, engagement of customers in terms of their behavioral manifestation toward a brand is one of the most widely considered key performance indicators as it is strongly linked to improved customer relationships (Ma et al., 2015) and sales (Manchanda et al., 2015). This crucial role has spurred considerable interest in how MGC can be employed to trigger engagement. MGC relates to different formats such as text, images, or videos (Smith et al., 2012, de Vries et al., 2012) and can be seeded through different digital channels such as emails or social media platforms (Hinz et al., 2011, Lee et al., 2018). To motivate users to engage with a brand in social media and contribute resources to the brand relationship, marketers design their content so it predominantly (but not exclusively) speaks to one of three generic user goals (Knoke, 1988, Garnefeld et al., 2012, Weiger et al., 2017): They can use affiliative content that highlights emotional attachments to a community; Injunctive content which provide directives for what users
should do in a community; And utilitarian content, which addresses cost-benefit calculations to maximize a user’s own utility.

*Network intimacy.* When engaging in social media (e.g., by reacting to MGC in social media brand communities), users’ activities are displayed in the newsfeeds of their social media “friends” or “followers” alerting their social network of the underlying marketer action (Sun *et al.*, 2017). Consequently, among other user characteristics (e.g., demographics; Lipsman *et al.*, 2012), disseminating MGC among users’ social networks by targeting well-connected users is essential for social media marketers (Stephen *et al.*, 2015, Hinz *et al.*, 2011).

However, users’ online social networks and brand communities represent sharply bounded social groups which are subject to strong in-group and out-group considerations, in a sense of discrimination against users who are not in the preferred social group (e.g., indifference toward out-group users; Wrzus *et al.*, 2013). Therefore, user-specific preferences for the size of their social networks put strong contingencies on users’ community engagement responses to external stimuli (like MGC). The question whether users confide to intimate and small social circles (Van den Bulte and Wuyts, 2007, Granovetter, 1983) or broad social networks is decisive for how selective users are when considering whom to interact with on social media (Baumeister and Leary, 1995), and thus relates to how users respond to MGC, which tries to encourage such interactions. More specifically, users high in network intimacy (e.g., having a low number of Facebook friends) likely consider fellow community members as an out-group, and thus are more likely to discriminate against them. As a result, the degree of network intimacy shapes the responsiveness to MGC types depending on whether an MGC type motivates interactions with out-group individuals (i.e., other community members) or not.
Self-determination theory

In extant conceptual research on content marketing the processes that operate between MGC stimuli and engagement responses are frequently treated as a black box. It has rarely been acknowledged that MGC represents a powerful tool that unfolds motivational forces for engagement behaviors by either pointing to inherently satisfying experiences or eliciting perceptions of pressure to follow behavioral directives. Self-determination theory (SDT) is a highly germane theory to explain the motivational processes underlying the relationship between MGC and engagement (Deci and Ryan, 2002). The core premise of SDT is that behavior varies along a continuum from low to high self-determination (Ryan and Deci, 2000). SDT essentially differentiates two types of motivations (autonomous versus controlled motivation) that together cover the entire range of self-determination (Deci and Ryan, 2002). Importantly, both motivations may release the psychological resources required to develop the willpower to engage in a specific behavior.

Autonomous motivation relates to a psychological state with high self-determination and depends on how the social context allows the satisfaction of the three basic psychological needs: autonomy (i.e., feeling alignment with own values and goals), relatedness (i.e., feeling connected), and competence (i.e., feeling effective in own behavior; Deci and Ryan, 1985, Deci and Ryan, 2002). In the context of this study, autonomous motivation is high when belonging to a brand community feels like a self-governed decision (Dholakia et al., 2004). Autonomous motivation might also arise from the sense of being connected with others within a community, which conveys perceptions of relatedness (Sheldon et al., 2011). Users may also be autonomously motivated through providing others with feedback on products or services, which relates to perceptions of competence (Goh et al., 2013).
In contrast, controlled motivation relates to a psychological state with low self-determination and depends on how the social context of behavior provides behavioral directives. Across social contexts, behavioral directives relate to whether users feel pressured to act to attain feelings of pride and ego enhancement (through verbal praise for their helpful comments in a community), avoid feelings of guilt (through verbal criticism which makes them feel obligated to other fans), or attain rewards issued by the firm (Deci and Ryan, 2002). As we detail next, content marketing research and SDT feed into the conceptual framework.

**Conceptual framework**

The objective of this research is to offer guidance on how to employ MGC to trigger beneficial effects and avoid harmful effects regarding customer engagement. Thus, the conceptual framework accounts for user engagement as the key dependent variable and MGC types as the key independent variables. To address targeting concerns of social media marketers, we account for the moderating role of users’ network intimacy, which might explain different responses to MGC across users. Finally, we consider users’ community membership motivation as a mediating variable for the effect of MGC on customer engagement. Figure 1 depicts the framework and the related studies. We next justify and define the variables contained.

[INSERT FIGURE 1 HERE]

**User engagement**

Consumer engagement in and beyond the social media context encompasses affective, cognitive, and/or behavioral dimensions (Brodie et al., 2011, Hollebeek et al., 2014, Sprott et al., 2009). Importantly, user engagement is defined as behavioral manifestations toward a
brand which are expressions of underlying psychological states resulting from a consumer’s interactive relationship with a brand (van Doorn et al., 2010, Brodie et al., 2011). We consider creating, liking, and sharing of social media content as user engagement activities as they represent such behavioral manifestations toward a brand (Noguti, 2016) and have most frequently been adopted in most recent research (e.g., Lee et al., 2018).

**Marketer-generated content**

In general, MGC is defined as social media content that originates from the firm (Goh et al., 2013). We consider three generic MGC message types. *Affiliative content* is defined as marketing messages that highlight activities and values shared in the community (Knoke, 1988, Schau et al., 2009). It speaks to the goal of attaching emotionally to a community by, for example, emphasizing the binding to other community members (Algesheimer et al., 2010, Dholakia et al., 2004). We define *injunctive content* as marketing messages that solicit users taking actions by instructing a particular behavior in the community (Garnefeld et al., 2012, Knoke, 1988). Such messages provide implicit or explicit directives on how to act according to the social conduct among users (i.e., community rituals and practices) and speak to the goal of complying to generally accepted behavior. *Utilitarian content* is defined as marketing messages that highlight tangible and intangible benefits to oneself (Weiger et al., 2017, White and Peloza, 2009). Such content speaks to the goal of maximizing economic utility by encouraging users to engage in return for some form of compensation.

**Network intimacy**

We are further interested in identifying situations in which specific MGC types perform better or worse in triggering engagement, which we consider in the framework by accounting
for the moderator network intimacy. *Network intimacy* is defined as the mutual confiding within a user’s social network in terms of small and close social circles (Granovetter, 1983).

**Community membership motivations**

Finally, we include variables that capture the process of how MGC impacts engagement based on SDT. The theoretical argument put forward in the last section implies that engagement can be triggered by autonomous motivation (if a user perceives behavior in a social context as highly self-determined) or controlled motivation (if the context triggers perceptions of low self-determination). In this research, the social context represents social media communities. Thus, we consider construed motivations to belong to a brand’s social media community (i.e., following a brand on social media) as mediators for the impact of MGC on engagement. *Autonomous community membership motivation* is defined as the desire to belong to a community in order to satisfy the needs of autonomy, relatedness, and competence (Deci and Ryan, 2002). We define *controlled community membership motivation* as the desire to belong to a brand’s social media community due to perceiving an outside impetus to do so (e.g., receiving admiration by others, obtaining rewards, avoiding feelings of guilt).

**Hypotheses development**

*The effect of marketer-generated content on user engagement*

*The effect of affiliative content.* Affiliative content was characterized as content that makes affective relations to community members salient (Knoke, 1988). As this affective bonding centers on the brand’s products it is likely to encourage a user’s engagement efforts towards the brand as those activities benefit other users and strengthen the social bonds between community members. Thus:
**H1.** Affiliative content has a positive effect on user engagement.

*The effect of injunctive content.* We had defined injunctive content as marketing messages that suggest or even “demand” specific behavior (i.e., community practices such as posting content) in the community. Such precise directives can persuade community members to adhere to these requests, which is useful to encourage them to perform activities desired by the marketer (Lee et al., 2018). Importantly, prior research has shown that such efforts that rely on providing implicit or explicit directives can be effective in driving engagement (e.g., Weiger et al., 2018). Hence:

**H2.** Injunctive content has a positive effect on user engagement.

*The effect of utilitarian content.* Utilitarian content denotes marketing messages that highlight tangible and intangible benefits to oneself. Thus, they encourage maximizing one’s own expected utility in return for engaging in the community (Knoke, 1988). All else being equal, when engaging in social media entails the chance to obtain a reward, users are more likely to perform such engagement activities to maximize the chance of receiving the reward (Garnefeld et al., 2012). Therefore:

**H3.** Utilitarian content has a positive effect on user engagement.

*The moderating role of network intimacy*

As discussed above, the level of network intimacy determines the kind of individuals that a focal user prefers to interact with (Baumeister and Leary, 1995). Users with high network intimacy are likely to demonstrate a more pronounced in-group vs. out-group distinction, in a sense of discriminating individuals who are not in their in-group (i.e., their small and close social network; Brewer, 1979, Wrzus et al., 2013). Contrarily, low intimacy users are open to burst their own bubble and interact with a broad and diverse user collective (i.e., out-group
users. As MGC tries to encourage interactions with others, network intimacy determines how users respond to MGC. However, different types of MGC motivate interactions with either out-group or in-group individuals. As a result, network intimacy might shape the responsiveness to MGC types in different ways.

The discussion above implies that users with higher network intimacy have a lower desire to be connected to others outside their inner social circle. Thus, we postulate that such users demonstrate less favorable responses to marketers that use affiliative content which attempts to foster affective bonding with other members of the community (i.e., out-group members). Thus:

**H4.** Network intimacy weakens the positive effect of affiliative content on user engagement.

Users that prefer a close intimate network also have a reduced desire to transcend the boundaries of their inner circles. This implies that they are more selective when considering interacting with out-group users merely to follow an external prompt to do so. Users with a preference for intimate social networks might perceive external directives as particularly intrusive and thus be particularly reactant against such initiatives. Thus, such users are less likely to engage in response to injunctive content. Hence:

**H5.** Network intimacy weakens the positive effect of injunctive content on user engagement.

When responding to utilitarian content, a user might demonstrate to other community members that he/she is instrumentalized by the firm. We suggest that high network intimacy users are less concerned about being openly instrumentalized in social media and are more likely to maximize their own utility in response to utilitarian content for two reasons. On the
one hand, the self-worth of users with high network intimacy that live within their own “social bubble” may be more resistant to skeptical opinions of out-group users (Weiger et al., 2017, Sun et al., 2017). Prior research suggests that maintaining a confined camaraderie in social media communities helps accumulating social capital which safeguards users against “outsider opinions” and enhances the response to utilitarian brand communications (Mathwick et al., 2008). On the other hand, users high in network intimacy may turn to social media mainly for their utilitarian function (i.e., to be informed about promotions and products) instead of their social function (i.e., making new friends).\textsuperscript{1} Hence, marketers can readily “lure” such low-connected users by offering rewards without worrying about potential restricting sanctions of the brand community and of the user’s social ties. Thus:

\textit{H6.} Network intimacy strengthens the positive effect of utilitarian content on user engagement.

\textit{The mediating role of autonomous community membership motivation}

We argue that affiliative content impacts user engagement through autonomous community membership motivation because it makes salient how community membership enhances perceptions of autonomy, relatedness, and competence. First, processing affiliative content triggers the elaboration of how the community reflects own interests and values, promoting perceived autonomy. Second, thinking about shared interests and values allows users to feel connected, which triggers relatedness perceptions (Chen et al., 2018). Third, highlighting that users can contribute to the community with their experiences conveys perceptions of competence.
If affiliative content makes salient that a community facilitates need satisfaction it triggers autonomous motivation to belong to it. Users perceiving autonomous community membership motivation are likely to put more effort into engaging with the community.

\textit{H7}. The positive effect of affiliative content on user engagement is mediated by autonomous community membership motivation.

The \textit{moderated mediation of the impact of affiliative content through autonomous community membership motivation}. We postulate that the interaction between affiliative content and network intimacy operates through autonomous community membership motivation because users with higher network intimacy have a lower desire to connect with out-group users (Wrzus \textit{et al.}, 2013). Thus, satisfying the need for relatedness in social media is less important for those users because they are not inclined to use them for social functions (Sheldon \textit{et al.}, 2011). Consequently, affiliative content may be less effective users with high network intimacy because autonomous motivation is not fostered by relatedness perceptions.

\textit{H8}. Network intimacy weakens the positive indirect effect of affiliative content on user engagement through autonomous community membership motivation.

The \textit{mediating role of controlled community membership motivation}

We argue that injunctive and utilitarian content trigger engagement through controlled motivation because both content types provide an outside impetus to belong to a brand’s social media community. Injunctive content exhibits an impetus on what users should do in the community. For instance, injunctive content might instruct users to share specific information because it is expected from them as other community members do it as well. In responding, a user may follow the directive to seek approval associated with feelings of ego enhancement or to avoid guilt. Both desires relate to high controlled motivation to belong to
a community (Deci and Ryan, 2002). All else equal, users are externally motivated to
demonstrate community membership, which manifests in increased user engagement.

H9. The positive effect of injunctive content on user engagement is mediated by
controlled community membership motivation.

Utilitarian content projects external contingencies on behavior because it emphasizes that
users can gain tangible or intangible rewards in return for community participation (Weiger
et al., 2017). Following this directive to receive a reward helps users attain external
verification of self-worth. Thus, utilitarian content is likely to impact engagement behavior
through controlled motivation (Deci and Ryan, 2002). Thus:

H10. The positive effect of utilitarian content on user engagement is mediated by
controlled community membership motivation.

The moderated mediation of the impact of injunctive and utilitarian content through
controlled community membership motivation. Users with high network intimacy have a low
desire to please out-group users (i.e., the marketers and other community members) and feel
less guilty when not doing what others ask them to do (Wrzus et al., 2013). Such users are
less likely to take on injunctive content as a behavioral directive and thus have a reduced
motivation to adhere to the outside impetus, rendering the motivational impact of injunctive
content less effective for driving engagement.

H11. Network intimacy weakens the positive indirect effect of injunctive content on
user engagement through controlled community membership motivation.

As discussed earlier, users with high network intimacy are more likely to maximize their
own utility in response to utilitarian content. Thus, such users are more willing to belong to a
community for externally provided benefits although others may disapprove such an obvious
instrumentalization. In a related study, Sun et al. (2017) demonstrate that community members with few social connections are more likely to contribute product reviews in return for monetary rewards. This suggests that they are more likely to develop higher levels of controlled motivation in response to utilitarian content, which manifests in increased engagement.

\textit{H12.} Network intimacy strengthens the positive indirect effect of utilitarian content on user engagement through controlled community membership motivation.

\textbf{Study Overview}

To test the hypotheses, we run two complementary studies (see Figure 1). In Study 1, we draw on a field survey to examine MGC types’ direct impact on engagement while considering the moderating role of network intimacy. After examining \textit{which} and \textit{when} different MGC types are most effective, we draw on an experimental scenario approach in Study 2 to examine our SDT-based expectations on \textit{how} MGC operates in driving engagement. More precisely, we examine users’ community membership motivation as a mediator between MGC and user engagement and we explore whether the interaction effect between MGC and network intimacy can also be explained by community membership motivation.

\textbf{Study 1: investigating the impact of marketer-generated content on user engagement in a field setting}

Study 1 uses a field survey to test whether MGC affects engagement (H1-H3). Further, we examine whether these effects are moderated by network intimacy (H4-H6).
Research setting and data collection

Data are collected in the context of social media brand communities of two major German brands from the fast-moving consumer goods (FMCG) and the electronics industry. In line with current industry practices (Barnes et al., 2015) and with most prior research on the consequences of MGC (e.g., Lee et al., 2018), we focus on Facebook because it represents one of the most popular social media channel to run content marketing. The field survey targeted Facebook users[2] through an online questionnaire, which resulted in an effective total of 622 respondents. Two vouchers worth 25€ each were raffled among all participants. First, based on their previous experience, participants could choose one of the two brands. Second, the participants were directed to the Facebook brand page of the focal brand and were instructed to examine all the content generated on the page for approximately three minutes and to protocol their time spent on the page, which we verified afterwards (i.e., “Please indicate how long you have observed the [brand] Facebook page.”). Afterwards, the respondents answered questions about their perceptions of MGC on the focal brand page, their engagement intentions, their general Facebook usage and number of friends, and other control variables (e.g., demographics).

Measurement

All measures used in this study are provided in Table 1 and items were anchored by 1 = strongly disagree and 7 = strongly agree, unless otherwise noted. We used two items each to measure perceptions of affiliative, injunctive, and utilitarian content and calculated their factor scores for further operationalization. We adapted five items from Dholakia et al. (2004) and Harrison-Walker (2001) to measure user engagement. Importantly, we adapted the items so that the multi-item measure captures all user engagement activities possible in
social media (own user content and user reactions such as likes, shares, and comments on MGC; Stephen et al., 2015). We measured network intimacy as the inverse of the participant’s number of friends on the focal social media platform. We captured perceived quality of the brand by a single-item adapted from Yoo and Donthu (2001) and purchase intention to account for individual brand preference and Facebook membership duration, social media activity, age, gender, and education using self-developed single items. Cronbach’s α for the multi-item scales suggested that the scales are reliable (all Cronbach’s α ≥ .81). Finally, we include a dummy variable that indicates whether the participant observed the brand page of the FMCG or consumer electronics brand. Table 2 provides the summary statistics and correlation matrix.

[INSERT TABLE 1 HERE]

[INSERT TABLE 2 HERE]

Model

We estimate the following regression model to examine the impact of MGC on user engagement:

(1) \( \text{ENG}_i = \beta_0 + \beta_1 \text{AFC}_i + \beta_2 \text{INC}_i + \beta_3 \text{UTC}_i + \beta_4 \text{AFC}_i \times \text{NEI}_i + \beta_5 \text{INC}_i \times \text{NEI}_i \\
+ \beta_6 \text{UTC}_i \times \text{NEI}_i + \beta_7 \text{NEI}_i + \beta_8 \text{PEQ}_i + \beta_9 \text{PUl}_i + \beta_{10} \text{MED}_i + \beta_{11} \text{SOA}_i + \beta_{12} \text{AGE}_i \\
+ \beta_{13} \text{FEM}_i + \beta_{14} \text{ACA}_i + \beta_{15} \text{ELE}_i + \varepsilon_i \)

where AFC, INC, and UTC refer to affiliative, injunctive, and utilitarian content and NEI refers to the moderator network intimacy. We also included control variables: PEQ is perceived quality of the brand, PUI is purchase intention of the brand’s product, FMD is Facebook membership duration, SOA is social media activity, AGE is age, FEM is female,
ACA is academics, and ELE is a dummy variable to control for general industry effects (1 = electronics; 0 = FMCG). Finally, $\varepsilon_i$ refers to the disturbance terms of subject $i$.

Results

Table 3 contains the results from the regression model. The results show that affiliative content ($\beta_1 = .178$, $p \leq .001$), injunctive content ($\beta_2 = .173$, $p \leq .001$), and utilitarian content ($\beta_3 = .218$, $p \leq .001$) have a significant positive effect on user engagement. Thus, we accept $H1$ - $H3$. We find a positive and significant effect of the interaction between affiliative content and network intimacy on user engagement ($\beta_4 = .112$, $p \leq .05$) and therefore reject $H4$ because we expected an opposite effect. Further, in support of $H5$, the interaction between injunctive content and network intimacy yields a negative and significant effect on user engagement ($\beta_5 = -.052$, $p \leq .05$). Finally, we find a positive and significant effect of the interaction between utilitarian content and network intimacy on user engagement ($\beta_6 = .060$, $p \leq .01$), providing support for $H6$.

[INSERT TABLE 3 HERE]

Discussion of Study 1

The results of Study 1 indicate that the three MGC types increase engagement in social media brand communities. Further, comparing the standardized coefficients of the MGC types in Table 3 suggests that utilitarian content is the strongest driver of user engagement, followed by affiliative and injunctive content. We find that the impact of utilitarian content can be further strengthened when disseminated at users with high network intimacy. However, the effect of injunctive content on engagement is dampened when recipients hold a small circle of friends in social media. Counter to our expectations, the impact of affiliative content on engagement is strengthened instead of weakened by network intimacy. This
counterintuitive result raises the question of how MGC motivates user engagement, which is subject of the next study.

By employing an experimental scenario approach, in Study 2 we examine the underlying motivational processes in the relationship between MGC and user engagement. A further experimental validation is also warranted as Study 1 is subject to some limitations. For instance, because we used a sample that consists of non-fans and fans of the respective brands, Study 1’s face validity is restricted because we could not ensure whether the users were familiar with brand-specific community practices (Schau et al., 2009). Further, the participants observed real life MGC on the focal brand page. However, not manipulating the MGC raises concerns regarding the internal validity of the Study 1 results. Thus, we now experimentally validate our results and employ a sample consisting of a brand’s social media fans only (i.e., actual community members).

**Study 2: Investigating the mediating role of community membership motivation**

Study 2 uses a scenario experiment to test whether autonomous community membership motivation can explain the engagement effect of affiliative MGC (H7) and the engagement consequences of the interaction between affiliative MGC and network intimacy (H8). Moreover, we test the role of controlled community membership motivation for explaining the effects of injunctive and utilitarian MGC on engagement (H9, H10) and the effects of the interaction between these two MGC types and network intimacy on engagement (H11, H12).

**Research setting and data collection**

Data collection was conducted on the Facebook brand page of a European sports footwear brand. We concentrate on Facebook because it is the focal brand’s main communication channel to establish consumer touchpoints. The study participants were recruited through
several public posts on the brand page containing a link to the survey website. Five vouchers worth $25 each were raffled among all participants. First, participants were randomly assigned to one of four groups: three treatment groups for the three MGC types (affiliative, injunctive, and utilitarian) and a group with neutral content as control group. The respective content was embedded in the survey website and was crafted in collaboration with the brand’s social media marketing team to ensure that the design and voicing mimicked typical MGC regularly posted on the brand page. In contrast to Study 1 and to avoid selection bias, we chose not to expose subjects to actual MGC on the brand page but randomly assigned the participants to one MGC scenario instead. Each treatment scenario was checked for comprehensibility prior to the study. We provide the text of each scenario in Table 4. Second, in addition to the treatment exposure, the respondents answered questions on MGC perceptions, motivations, engagement intentions, moderator (i.e., number of Facebook friends), and controls in the online survey. At the end of the survey, the participants could also provide their username. A total of 208 users completed the survey (response rate = 31.23%).

Due to the nature of the Facebook algorithm, the posts used to recruit participants were displayed in the newsfeed of fans of the footwear brand as well as in the feeds of their Facebook friends. However, as the manipulations in our scenario experiment focus on established community practices on the footwear brand’s Facebook page (Schau et al., 2009), we verified that participants were actual fans of the brand page and only considered those (1) who stated their username at the end of the survey, and (2) whose username could be verified (Rishika et al., 2013). This procedure resulted in a sample size of $n = 135$ with responses equally distributed across treatments.
Measurement

As for Study 1, all items used are presented in Table 1 and the summary statistics as well as the correlation matrix are provided in Table 2. All items are anchored by 1 = strongly disagree and 7 = strongly agree, unless otherwise noted. In line with Study 1, we allowed for user heterogeneity and accounted for the respondents’ MGC perceptions instead of merely using dichotomous variables indicating the scenario condition for capturing the static manipulation of MGC types (Baker et al., 2002, Wang et al., 2007).4 In doing so, we capture how content is construed in recipients’ minds. We argue that these perceptions result in highly accessible cognitions that are likely to explain subsequent behavioral intentions (Fitzsimons and Shiv, 2001). Another advantage of this approach is that we examine a larger variance in the independent variable, which is important given the relatively small number of respondents per group. Thus, we measured perceptions of affiliative, injunctive, and utilitarian content using self-developed items (see Table 1). However, in securing that the treatments worked as desired in triggering the respective perceptions we found that participants perceived the different MGC types as intended. Participants in the affiliative content scenario (M = 5.21) reported higher levels of affiliative content perceptions than participants in the other scenarios (M = 4.52; p ≤ .05). Likewise, the injunctive content scenario (M = 3.59) yielded higher injunctive content perceptions than the other scenarios (M = 3.01; p ≤ .05). Finally, the mean of utilitarian content perceptions was higher in the utilitarian content scenario (M = 4.78) than in the other scenarios (M = 2.01; p ≤ .001). To measure the autonomous (controlled) motivation variables, we used four (three) items adapted from Ryan and Connell (1989) and calculated their factor scores for further
operationalization. We adapted five items from Dholakia et al. (2004) and Garnefeld et al. (2012) to capture user engagement (100-point scale; anchored by “0% = not at all likely” and “100% = totally likely”) and take the logarithm of the mean across these items (to reduce the spread and skewness of the distribution) for further operationalization.

We again measured network intimacy as the inverse of the participant’s number of friends on the focal Facebook page. As controls, we also captured perceived quality of the brand using two items adapted from Pappu et al. (2005) and brand associations, Facebook membership duration, social media activity (focused on the Facebook brand page), age, gender, and education using single items. With one exception (injunctive content: $\alpha = .47$), all multi-item measures were reliable according to Cronbach’s $\alpha$ (all remaining $\alpha$’s $\geq .72$).

Model

We test our hypotheses using seemingly unrelated regression (SUR). SUR is particularly suitable for the purpose of this study because it accounts for correlated error terms across different equations (Wallace and Silver, 1988), which is helpful when the estimated relationships in an equation system are theoretically linked. At the same time, it allows for the assessment of mediation effects by simultaneously estimating direct and indirect effects (Preacher and Hayes, 2008).

We estimated the three equations simultaneously, with the first one representing the engagement model (user engagement, ENG, as dependent variable) and the last two representing the mediator models (autonomous motivation, AUM, and controlled motivation, COM, as dependent variables). We thus estimated the following three equations:
(2) \[ \text{ENG}_i = \beta_0 + \beta_1 \text{AUM}_i + \beta_2 \text{COM}_i + \beta_3 \text{AFC}_i + \beta_4 \text{INC}_i + \beta_5 \text{UTC}_i + \beta_6 \text{AFC}_i \times \text{NEI}_i + \beta_7 \text{AFC}_i \times \text{NEI}_i + \beta_8 \text{INC}_i \times \text{NEI}_i + \beta_9 \text{PEQ}_i + \beta_{10} \text{BAS}_i + \beta_{11} \text{AGE}_i + \beta_{12} \text{FEM}_i + \beta_{13} \text{ACA}_i + \epsilon_{1i} \]

(3) \[ \text{AUM}_i = \gamma_0 + \gamma_1 \text{AFC}_i + \gamma_2 \text{INC}_i + \gamma_3 \text{UTC}_i + \gamma_4 \text{AFC}_i \times \text{NEI}_i + \gamma_5 \text{INC}_i \times \text{NEI}_i + \gamma_6 \text{UTC}_i \times \text{NEI}_i + \gamma_7 \text{NEI}_i + \gamma_8 \text{MED}_i + \gamma_9 \text{SOA}_i + \gamma_{10} \text{AGE}_i + \gamma_{11} \text{FEM}_i + \gamma_{12} \text{ACA}_i + \epsilon_{2i} \]

(4) \[ \text{COM}_i = \delta_0 + \delta_1 \text{AFC}_i + \delta_2 \text{INC}_i + \delta_3 \text{UTC}_i + \delta_4 \text{AFC}_i \times \text{NEI}_i + \delta_5 \text{INC}_i \times \text{NEI}_i + \delta_6 \text{UTC}_i \times \text{NEI}_i + \delta_7 \text{NEI}_i + \delta_8 \text{MED}_i + \delta_9 \text{SOA}_i + \delta_{10} \text{AGE}_i + \delta_{11} \text{FEM}_i + \delta_{12} \text{ACA}_i + \epsilon_{3i} \]

where ENG, AFC, INC, UTC, NEI, PEQ, AGE, FEM, ACA, FMD, and SOA have the same meaning as in Study 1. BAS is brand associations. Finally, \( \epsilon_{1i}, \epsilon_{2i}, \epsilon_{3i} \) refer to the disturbance terms of subject \( i \). Please note that we followed the logic by Preacher et al. (2007) and also included the independent MGC variables and interaction terms in the engagement model to test for full mediation.\(^5\)

**Results**

**Direct effects.** We provide the results of the SUR models in Table 5. The results show that autonomous and controlled motivation have positive and significant effects on user engagement (\( \beta_1 = .452, p \leq .001; \beta_2 = .158, p \leq .05 \)). Further, affiliative content has a positive and significant effect on autonomous motivation (\( \gamma_1 = .125, p \leq .01 \)), while injunctive and utilitarian content have positive, significant effects on controlled motivation (\( \delta_2 = .200, p \leq .01; \delta_3 = .125, p \leq .01 \)). The results yield a negative and significant effect of the interaction between affiliative content and network intimacy on autonomous motivation (\( \gamma_4 = -11.341, p \leq .05 \)). Further, we find a negative and significant effect of the interaction...
between injunctive content and network intimacy on controlled motivation ($\delta_5 = -27.930$, $p \leq .05$). The effect of the interaction between utilitarian content and network intimacy on controlled motivation is positive and significant ($\delta_6 = 15.371$, $p \leq .05$). Interestingly, we find a positive and marginally significant effect of the interaction between affiliative content and network intimacy on controlled motivation ($\delta_4 = 8.567$, $p \leq .1$). The indirect effect of this interaction will thus be included in the mediation testing.

[INSERT TABLE 5 HERE]

**Mediation testing.** To test for the mediation hypotheses, we estimated direct and indirect effects simultaneously using bootstrapped SUR (5,000 draws) that build on an empirical sampling distribution of the indirect effects (Preacher *et al.*, 2007, Zhao *et al.*, 2010). The bootstrapped SUR indirect effect estimates are displayed in Table 6. We estimated the indirect effects using the products of coefficient approach.$^{[6]}$ Results show that autonomous motivation mediates the positive effect of affiliative content on user engagement ($\gamma_1\beta_1 = .056$; lower-level confidence interval [LLCI] = .016, upper-level confidence interval [ULCI] = .105) while controlled motivation mediates the positive effects of injunctive content ($\delta_2\beta_2 = .031$; LLCI = .011, ULCI = .071) and utilitarian content on user engagement ($\delta_3\beta_2 = .020$; LLCI = .006, ULCI = .046). Thus, our results provide support for $H7$, $H9$, and $H10$.

[INSERT TABLE 6 HERE]

As in study 1, the results do not support $H8$ because the expected negative indirect effect of the interaction between affiliative content and network intimacy on user engagement is not significant ($\gamma_4\beta_1 = -5.130$; LLCI = -12.824, ULCI = .249). In contrast, the results support $H11$ and $H12$. We find that the interaction between injunctive content and network intimacy has
an indirect negative effect on engagement ($\delta_5\beta_2 = -4.400; \text{LLCI} = -11.655, \text{ULCI} = -1.651$) and the interaction between utilitarian content and network intimacy has an indirect positive effect on engagement ($\delta_6\beta_2 = 2.422; \text{LLCI} = .374, \text{ULCI} = 6.734$). Finally, controlled motivation mediates the positive interaction effect between affiliative content and network intimacy on user engagement ($\delta_4\beta_2 = 1.364; \text{LLCI} = .044, \text{ULCI} = 4.753$).

The results suggest full mediation for the effects of affiliative content, injunctive content, and utilitarian content as well as partial mediation for the interaction effects of injunctive content and utilitarian content with network intimacy (Preacher et al., 2007). More precisely, Table 5 shows that, except for the negative and significant effect of the interaction of injunctive content and network intimacy ($\beta_7 = -19.677, p \leq .05$) and the positive interaction effect of utilitarian content and network intimacy ($\beta_8 = 13.983, p \leq .05$) on user engagement, there are no significant direct effects of MGC and their interaction terms on user engagement.

**Discussion of Study 2**

Study 2 adds to the findings of Study 1 in that it explains the underlying motivational mechanisms of the impact of MGC on user engagement. The findings demonstrate that the impact of affiliative content is fully mediated by autonomous motivation, while the effects of injunctive and utilitarian content are fully mediated by controlled motivation. Thus, the three MGC types under study are effective drivers of user engagement in social media brand communities, albeit operating through fundamentally different motivational paths. In line with our expectations, the findings indicate that network intimacy moderates the indirect effects of injunctive and utilitarian content on engagement through controlled motivation.
Study 2 further provides an important insight on the moderating role of network intimacy in the relationship between affiliative content and engagement, because it explains the positive interaction effect between affiliative content and network intimacy. Albeit demonstrating a negative interaction effect on autonomous motivation (in line with our expectation), we also find a positive interaction effect on controlled motivation (against our expectation). However, mediation testing shows that only the positive interaction effect carries through to user engagement via the controlled motivation path. Because affiliative content points to shared interests in the community, we suggest that it triggers a user’s desire to become an active part of the community’s practices (Schau et al., 2009). Hence, for users with high network intimacy, this represents a controlled motivation as there is an external impulse that induces them to step out of their confined social circle to communicate with other (out-group) community members.

In sum, Study 2 provides further support for our expected relationships in a different empirical setting. First, by considering a sports footwear brand instead of FMCG and consumer electronics brands as in Study 1, we focus on yet another product category to demonstrate the generalizability of our findings. Second, we adopt a different methodological approach by conducting an experiment among actual members of a social media brand community. Third, we use alternate measures for capturing MGC perceptions (see Table 1) to demonstrate that the findings are robust across different measurement instruments and to reflect the wide range of injunctive content as it is employed in social media practice.

**General discussion**

The effectiveness of social media content marketing is a major concern of marketers (Salesforce, 2017): What, when and how generic MGC types may enhance user engagement
is not well understood. These concerns represent the starting point of this research. Across two studies, a field survey and a scenario experiment, we provide robust empirical evidence on the engagement-enhancing effects of MGC and reveal the underlying motivational paths. Importantly, a user’s network intimacy leads to variations in the effectiveness of MGC.

Research implications

What marketer-generated content drives user engagement? We enhance the findings of prior MGC research (de Vries et al., 2012, Lee et al., 2018) in that we differentiate three generic content types derived from literature on communal systems to provide guidance on how to craft marketing messages conveyed with MGC. Our results show that affiliative content increases user engagement by highlighting shared interests to establish a sense of community on social media sites. This particularly adds to recent research that urges identifying social media instruments that do not force a “hard sell” on users in social media (Stephen et al., 2015, Weiger et al., 2018). In the same vein, findings demonstrate that, despite being viewed as “hard-sell tactics”, persuading users by either prompting behavior through injunctive content or by offering rewards through utilitarian content does lead to higher user engagement.

When does marketer-generated content drive user engagement? By evaluating the moderating role of network intimacy, this research extends prior studies that consider user characteristics that might impact the effectiveness of MGC (Sun et al., 2017). First, we find that network intimacy enhances the salutary effect of affiliative content on user engagement. Interestingly, across two studies and counter to our theorizing, we find that high network intimacy does not weaken the effect of affiliative content on user engagement, but instead strengthens it. Second, network intimacy weakens the impact of injunctive content on user
engagement. That is, users with a high preference for encapsulating in a close social circle perceive behavioral directives as particularly intrusive and tend to be less receptive to being prompted to take on such directives through injunctive content. This finding contradicts research on prosocial behavior, where injunctive appeals to perform a certain behavior in a community can be universally effective (White and Simpson, 2013) while we show that it might hold only for customers with specific characteristics (i.e., “cosmopolitan” users with a preference for belonging to broad social collectives but not for close circles). Thus, social media researchers should consider these potentially detrimental consequences of content that directly asks or enforces a certain kind of behavior, because it can likely lead to psychological reactance (Weiger et al., 2018). Third, utilitarian content’s positive effect on user engagement is strengthened for users with high network intimacy. We suggest that, although users with intimate social networks are more selective when taking on behavioral directives, they may be more inclined to respond to utilitarian content because they have reduced concerns of being openly instrumentalized by the firm. This is in line with research, that suggests that social media users with a low number of friends can only be convinced to post product reviews when they get compensated in return (Sun et al., 2017). Thus, network intimacy may be the key moderator for explaining when “hard-sell” persuasion-oriented instruments work to drive user engagement.

*How does marketer-generated content impact user engagement?* By examining the underlying motivational paths to engagement, we further extend MGC research which treated user motivations as a black box. As expected, mediated moderation analysis shows that affiliative content triggers autonomous motivation through the satisfaction of the three basic psychological needs. However, it also establishes controlled community membership
motivation for users with high network intimacy by directing them to communicate with users who are outside of their confined social circle. Thus, although some motivation researchers suggest that autonomous and controlled motivations are essentially orthogonal (Amabile et al., 1994, Grant et al., 2011), our research empirically confirms the existence of social settings that promote a parallel functioning of the two motivations as originally suggested by Deci and Ryan (2002).

Further, we observe that the positive effect of injunctive content and utilitarian content on user engagement is fully mediated by controlled motivation. Consequently, instructing users what to do and providing users with possibilities to attain tangible benefits proves to be a lever for user engagement despite its evident persuasion goal as it triggers controlled motivation. These findings demonstrate that social media marketing instruments do not need to nurture autonomous motivation to be effective tools for enhancing user engagement.

**Managerial implications**

Essentially, marketers can boost engagement by crafting content that works through either enhancing self-determination (autonomous community membership motivation) or through enhancing other-determination (controlled community membership motivation). This is good news, as these insights reveal a larger portfolio of instrumental options and, importantly, give green light for the use of “hard-sell” tactics in addition to “soft-sell” instruments that so far have been recommended as the preferable option for content marketing. However, when affiliative and utilitarian content is targeted at users who follow a “narrowcasting” communication style (users with small and confined social networks) engagement can be even further enhanced. More precisely, for those users, both MGC types trigger controlled motivation to belong to a brand’s social media brand community and thus further boost
engagement. This implies that in the “narrowcasters” segment, affiliative content is a particularly powerful tool as marketers can capitalize on both motivational forces at the same time for encouraging user engagement in this social media segment.

On the flipside, marketers should be careful when seeding injunctive content in their social media brand communities. Although we observe positive direct and indirect effects, injunctive content may backfire if not targeted correctly. Thus, marketers should target users who communicate with a broader audience and have low network intimacy, as possible negative repercussions of injunctive content are reduced for these “broadcasters”.

Avenues for future research

In this section, we present a few limitations that offer promising avenues for future research. First, the generic MGC types under study in this research focus on promoting behavior in communal contexts. However, we did not consider content that is specifically designed to shape brand attitudes (i.e., advertising-like content that highlights favorable aspects about the brand; Stephen et al., 2015), and leave this for further research.

Second, in Study 2, we aimed at achieving a realistic setting comparable to Study 1 and designed the MGC used in the treatments to mimic realistic marketing messages employed by the sportswear fashion brand. To bolster the comparability between the two studies we use MGC perceptions as measures of the independent variables instead of dichotomous variables for treatment conditions (Wang et al., 2007). In doing so, we capture how content is construed in recipients’ minds. However, further research should construct treatments that fully discriminate between different content types.

Third, we define network intimacy as the mutual confiding within a user’s social network in terms of small and close social circles. We measured this variable by taking the inverse of
a user’s number of social media friends because this information can be readily used by social media marketers to target their content (Lee et al., 2018). While this measure captures the size-related aspect of network intimacy, it does not capture whether users high in network intimacy also have close connections to their social media friends. To additionally cover this aspect, future researchers are encouraged to employ a measure that captures the type of a user’s connections in addition to the number of connections.

Fourth, we employ two different measures of injunctive content across our studies to demonstrate the robustness of our findings and to account for the different approaches used by marketers to provide directives on how to act according to the social conduct among community members. Interestingly, our findings suggest that different approaches to provide directives impact engagement in the same way. Because scale development was beyond the scope of this research, future research may wish to identify the underlying indicators of injunctive content and develop a scale that addresses its multi-faceted nature.

Finally, we do note that we used two different operationalizations for injunctive content perceptions across both studies, one focusing on explicitly requesting a user to engage in a particular behavior, the other one focused on asking a user to engage in a particular behavior by stressing what others do. As both approaches focus on different aspects of injunctive content and construct development was beyond the scope of this research, we encourage future research to develop an integrated measure that holistically captures injunctive content.
Endnotes

[1] We thank an anonymous reviewer for this suggestion.

[2] Participants were required to use Facebook at least once a month (Hollebeek et al. 2014).

[3] If these responses are retained, the results remain qualitatively the same.

[4] We do note that only measuring those perceptions that were intended to be manipulated in each scenario would assume that brands design their social media messages to be exclusively affiliative, injunctive, or utilitarian without containing any elements of the other content types. Thus, in line with other social media research (de Vries et al., 2012, Lee et al., 2018, Weiger et al., 2018) we allow for perceptions of all MGC characteristics across all conditions.

[5] Excluding these variables does not affect our results.

[6] For instance, the indirect effect of affiliative content on user engagement through autonomous motivation results from multiplying the respective direct effect coefficients (i.e., $\gamma_1 \times \beta_1$).
References


Figure 1: Conceptual Framework
### Table 1: Measures

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Measures Study 1</th>
<th>Measures Study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Engagement</td>
<td>I would likely visit the [brand’s] social media page in the future and …</td>
<td>I would likely visit the [brand’s] social media page in the future and … (anchored by 0% = not at all likely and “100% = totally likely”)</td>
</tr>
<tr>
<td>(ENG; Harrison-Walker, 2001,</td>
<td>… express what I like about [brand] very often.</td>
<td>… read a brand post.</td>
</tr>
<tr>
<td>Dholakia et al., 2004)</td>
<td>… like brand posts very often.</td>
<td>… like a brand post.</td>
</tr>
<tr>
<td></td>
<td>… share brand posts very often.</td>
<td>… share a brand post.</td>
</tr>
<tr>
<td></td>
<td>… comment on brand posts very often.</td>
<td>… comment on a brand post.</td>
</tr>
<tr>
<td></td>
<td>… create own posts very often.</td>
<td>… create an own post.</td>
</tr>
<tr>
<td>Autonomous Motivation (AUM; Ryan</td>
<td>I am currently a fan of the [brand’s] social media page …</td>
<td>… because I enjoy the numerous entertaining moments that are shared on the [brand’s] social media page.</td>
</tr>
<tr>
<td>and Connell, 1989)</td>
<td>-</td>
<td>… because I really enjoy sharing and interacting with the [brand’s] social media page.</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>… because my commitment to the [brand’s] social media page is personally very important to me.</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>… because I feel personal satisfaction by being a fan of the [brand’s] social media page.</td>
</tr>
<tr>
<td>Controlled Motivation (COM; Ryan</td>
<td>I am currently a fan of the [brand’s] social media page …</td>
<td>… because I would feel guilty if I quit being a fan of the [brand’s] social media page.</td>
</tr>
<tr>
<td>and Connell, 1989)</td>
<td>-</td>
<td>… because it would upset others if I weren’t a fan of the [brand’s] social media page anymore.</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>… because others really want me to be a fan of the [brand’s] social media page.</td>
</tr>
<tr>
<td>Affiliative Content (AFC; Schau et</td>
<td>The brand content that I just read, …</td>
<td>The brand content that you read asked you to interact with the [brand’s] social media page, …</td>
</tr>
<tr>
<td>al., 2009)</td>
<td>… highlighted the common interests of the [brand] social media community.</td>
<td>… in order to share with the [brand] social media community.</td>
</tr>
<tr>
<td></td>
<td>… highlighted the sense of community of the [brand] Facebook brand page.</td>
<td></td>
</tr>
<tr>
<td>Injunctive Content (INC; Stephen</td>
<td>The brand content that I just read, …</td>
<td>The brand content that you read asked you to interact with the [brand’s] social media page, …</td>
</tr>
<tr>
<td>et al., 2015)</td>
<td>… encouraged me to become active in the community.</td>
<td>… in order to do what others want.</td>
</tr>
<tr>
<td></td>
<td>… explicitly asked me to do something in the community.</td>
<td></td>
</tr>
<tr>
<td>Utilitarian Content (UTC; Weiger et</td>
<td>The brand content that I just read, highlighted …</td>
<td>The brand content that you read asked you to interact with the [brand’s] social media page, …</td>
</tr>
<tr>
<td>al., 2017)</td>
<td>… how I could receive a reward.</td>
<td>… in order to receive a reward.</td>
</tr>
<tr>
<td></td>
<td>… how I could realize a benefit.</td>
<td>… in order to win a prize.</td>
</tr>
<tr>
<td>Network Intimacy (NEI; Sun et al.,</td>
<td>Inverse of a user i’s number of self-reported friends on the social media platform.</td>
<td>The likely quality of [brand] running shoes is extremely high.</td>
</tr>
<tr>
<td>2017)</td>
<td>When I buy products from [brand], it feels like I’ve made a good purchase.</td>
<td></td>
</tr>
<tr>
<td>Perceived Quality (PEQ; Yoo and</td>
<td>-</td>
<td>The likelihood that [brand] running shoes would be functional is very high.</td>
</tr>
<tr>
<td>Donthu, 2001, Pappu et al., 2005)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase Intention (PUI)</td>
<td>I can imagine myself buying products from [brand] very well.</td>
<td></td>
</tr>
<tr>
<td>Brand Associations (BAS; Yoo and</td>
<td>-</td>
<td>I have no difficulty in imagining [brand] running shoes in my mind.</td>
</tr>
<tr>
<td>Donthu, 2001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Membership Duration (MED)</td>
<td>How long have you been a Facebook member?; Anchored by 1 = less than one month and 7 = 8 years or longer.</td>
<td>How long have you been a fan of the [brand’s] social media page? Anchored by 1 = less than one month and 4 = more than two years.</td>
</tr>
<tr>
<td>Social Media activity (SOA)</td>
<td>How often do you use Facebook?; Anchored by 1 = less than once a week; 7 = daily.</td>
<td>How often do you interact with [brand’s] social media page (read, share, comment or post content)? Anchored by 1 = never and 7 = once a day.</td>
</tr>
<tr>
<td>Age (AGE)</td>
<td>Age of user i. (1 = &lt; 18; 2 = 18-20; 3 = 21-30; 4 = 31-40; 5 = 41-50; 6 = 51-60; 7 = &gt; 60).</td>
<td>Age of user i.</td>
</tr>
<tr>
<td>Female (FEM)</td>
<td>Indicator variable for gender of user i (0 = male, 1 = female).</td>
<td>Indicator variable for gender of user i (0 = male, 1 = female).</td>
</tr>
<tr>
<td>Academics (ACA)</td>
<td>Education level of user i (no academic degree = 0, academic degree = 1).</td>
<td>Education level of user i (no academic degree = 0, academic degree = 1).</td>
</tr>
</tbody>
</table>

Notes: Items anchored by 1 = strongly disagree and 7 = strongly agree, unless otherwise noted.
Table 2: Summary Statistics and Correlations

| Measure                  | Study 1 | Study 2 | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 |
|--------------------------|---------|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1. User Engagement       | 1.67 (.99) | 45.41 (24.55) | 1.00 | .46 | .15 | .03 | .02 | .07 | -.06 | .07 | - | .12 | .13 | .31 | -.02 | -.05 | -.09 |
| 2. Autonomous Motivation |         | 3.77 (1.42) | - | 1.00 | .00 | .27 | .16 | .13 | -.01 | .36 | - | .19 | .12 | .28 | -.11 | -.01 | .04 |
| 3. Controlled Motivation |         | 2.03 (1.39) | - | - | 1.00 | .03 | .37 | .27 | -.14 | -.03 | - | -.30 | .08 | .09 | -.16 | -.15 | .07 |
| 4. Affiliative Content   | 3.07 (1.69) | 4.72 (1.87) | .25 | - | - | 1.00 | .38 | .21 | .02 | .25 | - | .03 | .05 | .04 | -.03 | .02 | .01 |
| 5. Injunctive Content    | 3.22 (1.49) | 3.13 (1.40) | .19 | - | - | .00 | 1.00 | .30 | -.11 | .09 | - | -.19 | .02 | -.08 | -.19 | -.14 | .04 |
| 6. Utilitarian Content   | 2.66 (1.47) | 2.79 (1.87) | .28 | - | - | .00 | .00 | 1.00 | -.05 | .04 | - | -.13 | -.08 | .01 | -.10 | .03 | -.01 |
| 7. Network Intimacy      | .01 (.02) | .01 (.01) | -.02 | - | - | -.08 | -.05 | -.06 | 1.00 | -.05 | - | -.03 | .00 | .05 | .24 | .11 | -.03 |
| 8. Perceived Quality     | 4.06 (1.59) | 5.83 (1.11) | .25 | - | - | .19 | .10 | .18 | -.12 | 1.00 | - | .37 | .07 | .16 | -.02 | .23 | .06 |
| 9. Purchase Intention    | 5.42 (1.65) | - | - | .08 | - | .04 | .10 | .09 | -.05 | .45 | 1.00 | - | - | - | - | - | - |
| 10. Brand Associations   |         | 6.50 (.85) | - | - | - | - | - | - | - | - | 1.00 | .07 | .04 | -.02 | .10 | .01 |
| 11. Membership Duration  | 5.06 (.91) | 1.84 (.99) | .02 | - | - | .02 | .05 | .01 | -.12 | .02 | .04 | - | 1.00 | .15 | .11 | -.16 | -.07 |
| 12. Social Media Activity| 2.63 (1.08) | 3.13 (1.67) | .45 | - | - | .16 | .03 | .17 | -.13 | .14 | .12 | - | .12 | 1.00 | .02 | -.02 | -.10 |
| 13. Age                  | 3.01 (.73) | 37.99 (9.39) | .03 | - | - | -.07 | -.08 | -.07 | .18 | -.06 | -.12 | - | .13 | .14 | 1.00 | -.12 | .00 |
| 14. Female               | 75.24% | 37.98% | - | -.12 | - | -.09 | -.13 | -.12 | .06 | -.08 | -.02 | - | -.01 | .05 | .08 | 1.00 | .10 |
| 15. Academics            | 38.10% | 76.92% | - | .05 | - | -.02 | .07 | .01 | -.07 | .04 | .01 | - | .08 | -.02 | .14 | -.11 | 1.00 |

Notes: Study 1 (2) correlations are reported below (above) the diagonal. For Study 1, correlations greater than or equal to |.08| are statistically significant ($p < .05$, two-tailed). For Study 2, correlations greater than or equal to |.15| are statistically significant ($p < .05$, two-tailed).
Table 3: Results for Study 1

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>User Engagement</th>
<th>Std. Coefficient</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td></td>
<td>.190*</td>
<td>.204</td>
</tr>
<tr>
<td><strong>MGC</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affiliative Content</td>
<td></td>
<td>.178***</td>
<td>.035</td>
</tr>
<tr>
<td>Injunctive Content</td>
<td></td>
<td>.173***</td>
<td>.034</td>
</tr>
<tr>
<td>Utilitarian Content</td>
<td></td>
<td>.218***</td>
<td>.038</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affiliative Content × Network Intimacy</td>
<td></td>
<td>.112*</td>
<td>4.457</td>
</tr>
<tr>
<td>Injunctive Content × Network Intimacy</td>
<td></td>
<td>-.052*</td>
<td>2.392</td>
</tr>
<tr>
<td>Utilitarian Content × Network Intimacy</td>
<td></td>
<td>.060**</td>
<td>1.304</td>
</tr>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network Intimacy</td>
<td></td>
<td>.170**</td>
<td>3.583</td>
</tr>
<tr>
<td>Perceived Quality</td>
<td></td>
<td>.147***</td>
<td>.024</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td></td>
<td>-.067*</td>
<td>.023</td>
</tr>
<tr>
<td>Membership Duration</td>
<td></td>
<td>-.025n.s.</td>
<td>.042</td>
</tr>
<tr>
<td>Social Media Activity</td>
<td></td>
<td>.385***</td>
<td>.040</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>.004n.s.</td>
<td>.065</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>-.100**</td>
<td>.090</td>
</tr>
<tr>
<td>Academics</td>
<td></td>
<td>.040n.s.</td>
<td>.070</td>
</tr>
<tr>
<td>Electronics</td>
<td></td>
<td>-.113**</td>
<td>.098</td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td>.355</td>
<td></td>
</tr>
<tr>
<td>Adj. R²</td>
<td></td>
<td>.339</td>
<td></td>
</tr>
</tbody>
</table>

† p ≤ .1; * p ≤ .05; ** p ≤ .01; *** p ≤ .001; n.s. = not significant.

Notes: N = 622. Results are based on two-tailed t-tests. All coefficients are standardized. To account for heteroscedasticity, we estimated all models using robust standard errors. All variance inflation factors (VIF) are below the recommended cut off of 5 (O’Brien, 2007).
### Table 4: Overview of Treatment Scenarios for Study 2

<table>
<thead>
<tr>
<th>Condition</th>
<th>Content/Text</th>
</tr>
</thead>
</table>
| **Affiliative Content** | **Share what keeps you motivated!**  
All of us know this situation: We really want to go running, we honestly want to, but something just distracts us from it. Is it the grey and cold weather that makes our couch just too comfy? Let’s face it: Sometimes it is harder to motivate ourselves than at other times. Talking at the lunch table at [brand] showed that all of us—ok, at least most of us—sometimes just cannot get ourselves up for a nice run. So what can we do about it? Someone who knows is one of our founders, world champion and Ironman -winner. He immediately came up with some great reasons why we should get our running shoes on right now. For example? “Running transports a lot more oxygen into your brain lifting your creativity and efficiency. Just by standing instead of sitting your creativity increases by about 25%. If you start moving you can more than double this number up to 60% and by running to over 100%.” Pretty amazing, right? Do you know any other ways to motivate yourself? Share what motivates you with the community and tell us how to shake off hibernation on our [social media site]. |
| **Injunctive Content** | **Wanted: your feedback**  
Did you see what was posted on our [social media site] recently? Two of our fans gave us feedback on how they have experienced their [brand] shoes.  
[Fan 1] for example said: “I have been running for 20 years, and have never had a better shoe. These shoes are the best for any style of running. There is no breaking in period, just lace them on and go.”  
[Fan 2] told us: “I have to say I am enjoying my [brand] shoes. I am coming back from a stress fracture in my foot and these shoes give me the support I need. Plus the purple color is cool. My one complaint would be the shoelaces. They never stay tied even in a double knot. Sometimes I have to stop my run to relace them. Kind of annoying.“  
For us at [brand] your feedback is highly appreciated. Have you ever told us about your running-experience with [brand]? [Fan 1] and [Fan 2] have let us known how they feel about their [brand] shoes, and so should you! Now it’s your turn to let us know what you think. To do so, visit us on our [social media site]. |
| **Utilitarian Content** | **Win our new [brand] shoe!**  
After a long period of engineering they are finally here: The new [brand] shoes made their way to the shelves of our dealers and webshop. We are really proud to present our new member of the [brand] family.  
With the all new Speedboard the [brand] shoes incorporate one of our latest innovations, one the world has never seen before. Consisting of different fusioned layers the Speedboard works as a dynamic guidance to ideally satisfy your foot’s need for support. As your feet impact on the ground, the [brand] shoes deliver responsive cushioning all the way through the heel to toe transition. Put in a nutshell: It gives you just what you need, just when you need it. This is what makes the new [brand] shoes the perfect shoes for runners who love long and extensive training sessions. Curious? Tell us on our [social media site] why you should be the first to try them and seize the opportunity to win your new [brand] shoes. |
| **Neutral Content** | **Just writing...**  
...for a quick Hello. We hope you are looking forward to the summer to come and stay as much as we do.  
And as springtime is competition time, our [brand] athletes are getting ready for their next competitions. For example, one [athlete] wants to prove that he is made of at the next race of the World Triathlon Series in Yokohama, Japan, this weekend. Let’s keep our fingers crossed for him! |
### Table 5: Direct Effects for Study 2

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>User Engagement</th>
<th></th>
<th>Autonomous Motivation</th>
<th></th>
<th>Controlled Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>SE</td>
<td>Coefficient</td>
<td>SE</td>
<td>Coefficient</td>
</tr>
<tr>
<td><strong>Motivations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomous Motivation</td>
<td>.452***</td>
<td>.062</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controlled Motivation</td>
<td>.158*</td>
<td>.065</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MGC</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affiliative Content</td>
<td>-.030n.s.</td>
<td>.034</td>
<td>.125**</td>
<td>.046</td>
<td>-.081†</td>
</tr>
<tr>
<td>Injunctive Content</td>
<td>-.073n.s.</td>
<td>.049</td>
<td>.064**</td>
<td>.067</td>
<td>.200**</td>
</tr>
<tr>
<td>Utilitarian Content</td>
<td>.016n.s.</td>
<td>.033</td>
<td>.026n.s.</td>
<td>.045</td>
<td>.125**</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affiliative Content × Network Intimacy</td>
<td>3.748n.s.</td>
<td>3.825</td>
<td>-11.341*</td>
<td>5.186</td>
<td>8.567†</td>
</tr>
<tr>
<td>Utilitarian Content × Network Intimacy</td>
<td>13.983*</td>
<td>5.908</td>
<td>-7.508n.s.</td>
<td>8.134</td>
<td>15.371*</td>
</tr>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network Intimacy</td>
<td>-4.328n.s.</td>
<td>6.847</td>
<td>.145s.</td>
<td>9.493</td>
<td>-9.280n.s.</td>
</tr>
<tr>
<td>Perceived Quality</td>
<td>-.112*</td>
<td>.067</td>
<td>.675s.</td>
<td>.080</td>
<td>.084s.</td>
</tr>
<tr>
<td>Brand Associations</td>
<td>.108n.s.</td>
<td>.075</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Membership Duration</td>
<td>.166***</td>
<td>.049</td>
<td></td>
<td></td>
<td>.061s.</td>
</tr>
<tr>
<td>Social Media Activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.001n.s.</td>
<td>.006</td>
<td>-.003n.s.</td>
<td>.009</td>
<td>-.011n.s.</td>
</tr>
<tr>
<td>Female</td>
<td>-.051n.s.</td>
<td>.126</td>
<td>.036n.s.</td>
<td>.170</td>
<td>-.270†</td>
</tr>
<tr>
<td>Academics</td>
<td>-.080n.s.</td>
<td>.123</td>
<td>.152n.s.</td>
<td>.172</td>
<td>.181n.s.</td>
</tr>
<tr>
<td>R²</td>
<td>.301</td>
<td></td>
<td>.203</td>
<td>.260</td>
<td></td>
</tr>
<tr>
<td>System R²</td>
<td>.287</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

† p ≤ .1; * p ≤ .05; ** p ≤ .01; *** p ≤ .001; n.s. = not significant.

Notes: N = 135. Results are based on two-tailed z-tests. All coefficients are unstandardized. To account for heteroscedasticity, we estimated all models using robust standard errors. All variance inflation factors (VIF) are below the recommended cut-off of 5 (O’Brien, 2007).
<table>
<thead>
<tr>
<th>Mediation Path</th>
<th>Effect</th>
<th>SE</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliative Content → Autonomous Motivation → User Engagement</td>
<td>.056</td>
<td>.027</td>
<td>.016</td>
<td>.105</td>
</tr>
<tr>
<td>Injunctive Content → Controlled Motivation → User Engagement</td>
<td>.031</td>
<td>.017</td>
<td>.011</td>
<td>.071</td>
</tr>
<tr>
<td>Utilitarian Content → Controlled Motivation → User Engagement</td>
<td>.020</td>
<td>.011</td>
<td>.006</td>
<td>.046</td>
</tr>
<tr>
<td>Affiliative Content × Network Intimacy → Autonomous Motivation → User Engagement</td>
<td>-5.130</td>
<td>3.855</td>
<td>-12.824</td>
<td>2.425</td>
</tr>
<tr>
<td>Affiliative Content × Network Intimacy → Controlled Motivation → User Engagement</td>
<td>1.364</td>
<td>1.373</td>
<td>.044</td>
<td>4.753</td>
</tr>
<tr>
<td>Injunctive Content × Network Intimacy → Controlled Motivation → User Engagement</td>
<td>-4.400</td>
<td>2.575</td>
<td>-11.655</td>
<td>-1.651</td>
</tr>
<tr>
<td>Utilitarian Content × Network Intimacy → Controlled Motivation → User Engagement</td>
<td>2.422</td>
<td>1.856</td>
<td>.374</td>
<td>6.734</td>
</tr>
</tbody>
</table>

N = 135; number of bootstrap resamples = 5,000; LLCI = 90% lower-level confidence interval; ULCI = 90% upper-level confidence interval.