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Social media engagement: What motivates user participation and consumption on YouTube?

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ABSTRACT

This study unearths the motives for YouTube user engagement that has been conceptualized as active participation and passive content consumption. In light of the Uses and Gratifications framework, a sample of 1143 registered YouTube users completed online surveys that helped gauge user behavior. Results showed that for participation on YouTube, the strongest predictor for liking and disliking videos was the relaxing entertainment motive; commenting and uploading being strongly predicted by social interaction motive; sharing being strongly predicted by information giving motive. Passive content consumption in the form of video viewing was most strongly predicted by relaxing entertainment motive, and reading comments predicted by information seeking motive. Greater YouTube experience negatively predicted liking, and anonymity played a role in sharing and uploading videos. Males were more likely to dislike YouTube videos in comparison with females.

1. Introduction

YouTube is a go-to resource for viewing videos. Launched in 2005, it is the third most visited site in the world after Google and Facebook (Alexa, 2016). YouTube content is diverse and global, offering the opportunity to disseminate content to a very broad audience of site visitors. The site thus serves as an attractive platform for both amateur content creators and media companies alike (Xu, Park, Kim, & Park, 2016). Politicians, news organizations, education institutes, businesses, music and film artists, and people from all walks of life use YouTube.

Recent years have witnessed the rise of video sharing in various forms. Better broadband Internet speeds and growing mobile device use have also fueled higher video consumption. According to Pew Research, the use of online video-sharing site showed a constant rise, in which about 33% of US adults had posted a video to an online site (Anderson, 2015). As of July 2015, 400 hours of video content was uploaded every minute on YouTube (Statistica, 2015).

Amongst various social media platforms, YouTube popularity is right behind Facebook; 77% of Internet users are on Facebook, while 63% use YouTube (Anderson, 2015). YouTube allows users to interact with the site in multiple ways, whereby participation on the site takes a deeper meaning. For example, registered users can rate (like/dislike), upload videos, comment on and share them. This phenomenon has given a greater degree of control to social media users in creating and manipulating content besides creating a sense of community. User Generated Content (UGC) in the form of comments may further encourage user interaction and discussion, and give the impression of an active website where everyone is and, thus, adding to the overall credibility (Kraut & Resnick, 2011).

Crucial to understanding the future of social media is studying the characteristics that make these sites appealing to people. Such sites are increasingly becoming a single platform for social interaction, information, news, and entertainment. A great deal needs to be learned about why and how users participate and consume information on various online sites. The design of socio-technical systems especially for promoting engagement in terms of maximum user participation is both a theoretical and real-world challenge that researchers strive to understand.

This study applies a motivational construct to unpack the motives of user participation and consumption on YouTube. Likes, comments, and shares are common features that enable user participation on social media sites. However, there is a diversity of features that are used for varied reasons. The appeal of YouTube, which is relatively an understudied social media site, can be understood through the Uses and Gratifications (U&G) framework. U&G is an established framework in media research that looks into

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the psychological needs and gratifications of individuals (Blumler & Katz, 1974).

This study advances our understanding of social media engagement and moves beyond a general view of user motivations of media use to include an analysis of specific features on YouTube. The study focuses on motivations to participate and consumes information on YouTube at a deeper level by viewing engagement in terms of liking, disliking, commenting, sharing, uploading, viewing, and reading comments. Through survey-based research method, the current research concentrates on unpacking engagement as a function of user participation and consumption of content on YouTube.

2. Literature review

2.1. YouTube

Social media platforms such as Twitter, Facebook, and YouTube have unique architecture, norms, and culture (Smith, Fischer, & Yongjian, 2012). As a result, users may tend to view these sites differently in terms of their unique affordances and how they interact with them. The variety in the ways YouTube is being utilized for not only entertainment but also social interaction in the form of commenting, and seeking and providing information makes the site interesting from a research perspective.

YouTube "can be regarded as a convergence of the traditional entertainment choices of television, music, and film" (Shao, 2009, p. 12). The site centers on a culture of self-promotion and broadcasting the self (Burgess & Green, 2009), and due to the wide variety, users have the option of subscribing to a myriad of video channels. YouTube is viewed as a platform to learn about things (e.g. "How-to" videos); and is a popular resource for sharing and watching music videos (Cayari, 2011). Brands also have a strong YouTube presence, and marketers increasingly rely on YouTube for not only promotion but also customer feedbacks (Smith et al., 2012).

The popularity of social media sites has encouraged social interaction and participation on an unprecedented scale. YouTube allows content to be shared, embedded and discussed (Burgess & Green, 2013). The site offers a variety of functionalities besides uploading and video viewing, that encourage both active and passive user engagement. In comparison with typical relationship oriented social media platforms such as Facebook, YouTube being focused on viewing videos, offers a unique online atmosphere to visitors with interesting set of interactive features such as the dislike button. UGC sites are, therefore, "creating new viewing patterns and social interactions, empowering users to be more creative, and developing new business opportunities" (Cha, Kwak, Rodriguez, Ahn, & Moon, 2007, p. 1). It thus becomes important for researchers to investigate these nuances in interaction and explore the motivations behind the use of YouTube.

2.2. YouTube engagement

Engagement has been defined as "a user-initiated action" (Gluck, 2012, p. 8), which leads to a 'co-creation' of value (Brodie, Ilic, Juric, & Hollebeek, 2013). Other scholars like Hollebeek (2011) viewed engagement as a multidimensional concept that comprises not only behavioral (actions) but also cognitive (thoughts), and emotional (feelings) aspects. Engagement may be viewed as an individual's interaction with media. This study views engagement as comprising behavioral aspects or click-based interactions (participation) as well as simple content viewing and reading (consumption).

Online behavioral engagement on Facebook is typically manifested symbolically through actions such as liking, commenting, and sharing. On YouTube, such engagement is manifested through actions such as liking, disliking, commenting, sharing and uploading videos. Moreover, viewing videos and reading comments is included as a form of engagement. Users may choose to remain passive by simply consuming content, or play an active role by participating in various interactions, and even repurpose content to fit their needs.

Engagement in the form of user participation on social media is not uniformly distributed, as a few users do a significant fraction of work. This is evident on sites such as Wikipedia where a small percentage of users write articles or edit them (Kittur, Suh, Pendleton, & Chi, 2007). Similarly, a fraction of visitors contribute videos on YouTube and comment and engage in discussions on videos. This type of distribution in terms of user participation on sites is known as the Pareto principle that suggests 80% of the work is done by 20% of individuals (Best & Neuhauser, 2006), which is also similar to the power law distribution in mathematics (Newman, 2005). Therefore, to have a wholesome understanding of engagement, both of its forms—active (participation) and passive (consumption) forms need to be examined.

2.3. Participation versus consumption

Passive users, also known as lurkers are users who read but do not post messages (or comments). Takahashi, Fujimoto, and Yamasaki (2003) define lurkers as those "who do not post any messages in an online community" (p.1). It is therefore argued that lurkers engage in consumption behavior. On the other hand, active users or posters participate by posting comments, like/dislike and share videos. Nonnecke and Preece (1999) show that lurkers (or passive users) make up 90% of many online communities.

Shao (2009) stated that individuals deal with content in three main ways: consumption, participation, and production. According to the study by Shao (2009), content consumption is when users watch a video, read comments and view likes/dislikes but do not respond. Viewing videos add to the number of views depicted at the bottom of a video. By viewing videos, users consume content. Shao (2009) viewed participation to include user-to-user and user-to-content interaction (commenting, sharing, liking, disliking). Lastly, the same study viewed production involving a greater degree of engagement that comprises actual publishing of content such as uploading a video on YouTube. In this study, uploading a video on YouTube has be categorized as a participatory act. Thus, the concept of YouTube engagement has been made more parsimonious and is conceptualized under two main categories—participation and consumption. Table 1 depicts these engagement classifications.

Amongst various participatory actions, UGC in the form of comments on various news sites has gained considerable importance overtime. Besides reading a news article or watching a video, individuals may also engage in reading comments posted by others. It may be argued in the age of social media, UGC in the form of comments carry weight in how individuals perceive reality, and even compete for influence against original news content posted by a news establishment. Research has already shown that UGCs have the potential to alter reader's perception significantly about the topic discussed (Kim & Sun, 2006; Lee & Jang, 2010).

A second most important form of content consumption is reading comments, which are available as text. YouTube allows any site visitor to read comments posted by registered users. In fact, users not only gain gratifications from writing comments but also reading them (Diakopoulos & Naaman, 2011). These comments are an expression of user opinions and reading them adds to the pool of information on the site. What is unique about YouTube is that it can

Table 1
YouTube Engagement Typology in terms of Participation & Consumption.

Variable	Description	Mean	Std. deviation
Participation			
Like	Likes on social media represent a form of user vote or an expression of appreciation of content. The number of likes indicates the popularity of content.	1.90	1.13
Dislike	A dislike is form of user vote used to express disapproval of some content.	1.43	0.73
Comment	Comments may vary in length and are an expression of text-based communication to express opinions about a topic.	1.39	0.68
Share	By sharing a YouTube video, a user may take a conscious decision to make the video available (sometimes on other social media platforms) within one's network of friends.	2.07	1.15
Upload	Uploading a video on YouTube may be considered as a higher level of participation in which a video is shared through uploading with the wider audiences on the site.	1.46	0.71
Consumption			
View	YouTube offers a video count on the site based on the number of times a video is viewed. The number of video views indicates popularity.	4.20	1.10
Read Comments	YouTube users can read comments that appear at the bottom of each video. This is a passive content consumption act.	3.07	1.16

be regarded as a platform where elements of traditional choices of television, film, and music converge with the interactive elements of digital media (Shao, 2009).

The advent of UGC has also reshaped the market of video sharing whereby content is being created by a myriad of users instead of a limited number of media producers. Not only are users increasingly uploading and sharing videos on mainstream social sites such as YouTube and Facebook but also on newer platforms such as Snapchat and Periscope; and Pew Statistics reveal that 41% teens are Snapchat users (Lenhart, 2015). Ephemeral platforms such as Snapchat display video content for a short period of time (Bayer, Ellison, Schoenebeck, & Falk, 2015, pp. 1–22), whereas enduring content sites such as YouTube offer not only the option of sharing videos but also afford various forms of engagement.

Some videos on YouTube become highly popular that they are widely shared within a short period of time. Referred to as viral video phenomena, certain videos become popular through sharing via email, social media sites, etc. Virality of a video is often seen as a measure of online success (Alhabash & McAlister, 2014), and often impacted by the size of the fan base or the offline social capital (Khan & Vong, 2014). The viral videos attract thousands of comments and millions of views, likes and dislikes, thereby promoting further engagement.

2.4. Uses & gratifications framework

U&G is a widely used framework in media research, shedding light on the important question of why and for what people use media (McQuail, 1983). The three essential objectives of U&G framework are: to explain how people use the media to gratify their needs; to unearth the motives for media use; and to identify the positive and negative consequences of media use (Katz, Haas, & Gurevitch, 1973). This study concentrates on understanding the motives for media use as conceptualized under the U&G framework.

Grounded in psychological and social contexts, user motives of media use are influenced by the context in which media use occurs (Rubin, 2002). Motives guide communication behavior in terms of choice making between different media alternatives. For example, when there are fewer opportunities for interaction, users may be motivated to engage with media for social activity and companionship (Armstrong & Rubin, 1989; Papacharissi & Rubin, 2000). Or, individuals may need to satisfy their information needs through media consumption (Palmgreen, Wenner, & Rayburn, 1980).

One of the core premises of the U&G framework is that the audience is active and seeks to fulfill its needs and receives satisfaction when a need is met (McQuail, 2005). The term “active” that was initially associated with uses and gratification involves selecting content and actively interpreting that content. With the advent of newer interactive media where users can participate in the form of commenting, the meaning of the U&G's active audience assumption has evolved. Online, active audiences are “selective, self-directed, producers as well as consumers” of information (Livingstone, 2003, p. 27). However, in the content of YouTube and other social media, many users choose to view a video and read text or comments, thereby engaging in media consumption (and not participation). Even though the site does allow interactivity, sometimes individuals may deliberately choose not to participate. Thus, the assumption under U&G framework of an active audience is not always correct (Lometti, Reeves, & Bybee, 1977).

U&G is a broad framework to help understand user motivations, and it has been refined over the years by various media scholars. Katz et al. (1973) originally developed 35 needs of mass media and subsequently classified them into five main categories: 1) cognitive needs (acquiring information, knowledge, understanding); 2) affective needs (emotion, pleasure, feeling); 3) personal integrative needs (credibility, status, stability); 4) social integrative needs (interacting with family and friends); and 5) and tension release needs (escape and diversion). McQuail (1983) provided four main reasons for media use: information, personal identity, integration and social interaction, and entertainment.

Over the years, U&G framework has been commonly employed in understanding user motives for media use: radio (Herzog, 1940; 1944), Usenet discussions (Kollock, 1999), online communities (Dholakia, Bagozzi, & Pearo, 2004), and Wikipedia (Nov. 2007). Dholakia et al. (2004), and Lampe, Wash, Velasquez, and Ozkaya (2010) highlight six categories of benefits of participating in online communities such as: Getting information, Giving information, Reputation building, Relationship development, Recreation, and Self-discovery.

More recently, studies attempted to unearth the motivations for social media use; such as, Instagram (Sheldon & Bryant, 2016), Facebook (Krause, North, & Heritage, 2014; Smock, Ellison, Lampe, & Wohn, 2011), digital photo sharing on Facebook (Malik, Dhir, &

Nieminen, 2016), Pinterest (Mull & Lee, 2014) and Twitter use (Liu, Cheung, and Lee, 2010; Chen, 2011).

In terms of YouTube use, there are very few studies that have attempted to probe motives for site use. Haridakis and Hanson (2009) employed the U&G framework to understand YouTube motivations in terms of viewing and sharing. They discovered that videos were viewed for information seeking and shared for entertainment, co-viewing and social interaction. User engagement in the form of participation and interactivity through likes, dislikes, and comments were not addressed in the Haridakis and Hanson's (2009) study.

Although various studies employed the U&G framework to highlight the motivations behind participating in online communities, they fell short of discussing how the role of an active audience actually manifests itself. This study fills the gap in research in light of new realities whereby participation is manifested in various forms. Therefore, this study not only builds upon the motives, but also perceives their relationship with user participation in the form of liking, disliking, commenting, uploading, and sharing, and consumption in the form of content reading and viewing.

By viewing these actions separately, it becomes possible to consider the motivations for these actions separately, thus, gain a better understanding of participation and consumption (discussed above) on YouTube. This claim leads us to our first set of research questions:

RQ1a. What are the motivations for participation on YouTube that predict liking?

RQ1b. What are the motivations for participation on YouTube that predict disliking?

RQ1c. What are the motivations for participation on YouTube that predict commenting?

RQ1d. What are the motivations for participation on YouTube that predict sharing?

RQ1e. What are the motivations for participation on YouTube that predict uploading?

The following questions will be useful in understanding the consumption behaviors on YouTube.

RQ2a. What are the motivations for consumption on YouTube that predict viewing videos?

RQ2b. What are the motivations for consumption on YouTube that predict reading comments?

2.5. Anonymity

User participation on YouTube is only possible when a person registers on the site with a unique identifying username. In many cases, usernames are distinct from individual names. It is noted that most usernames are not identifiable since they do not contain real names but incomplete letters, symbols and numbers. It would be interesting to see the role anonymity plays in varied motivations to participate. Studies have shown the relationship between anonymity and the propensity to participate in the form of commenting. Comments including flaming and more impulsive remarks are often linked to anonymity (Kiesler, Siegel, & McGuire, 1984). Less anonymity is also linked to higher quality comments (Kilner & Hoadley, 2005). Although the quality of comments is not the focus of this research, it is understandable that there is a positive relationship between user participation and anonymity. In this study, YouTube users whose usernames are not recognizable will be treated as anonymous users. This leads us to the following research question:

RQ3. Are users more likely to participate (like, dislike, comment, share, upload) on YouTube if they are anonymous users rather than non-anonymous users?

2.6. Experience

Earlier studies have shown that media use experience can positively impact individuals' self-efficacy (Eastin & LaRose, 2000). This implies that the greater the amount of experience or the duration of time spent in using various social media tools, the higher the propensity of users to engage with the site features. A study by Kraut et al. (2002) found that computer use enhanced Internet use skills overtime. Such experience or skills may engender engagement with the site. Continued use of a site over a period of time may cause users to build social connections leading to an increase in participatory and interactive behaviors. Thus, a user who is more adept at YouTube use may be more inclined to participate.

On the other hand, research has also found conflicting evidence. As a result of continuous media use, boredom and lack of enthusiasm may set in leading to a lower level of participation (Brandtzaeg & Heim, 2008; Nov, Naaman, & Ye, 2009). It would be interesting to see how site use experience and frequency of visiting YouTube may impact engagement, leading us to the fourth research question:

RQ4. Are users more likely to engage in participation on YouTube if they have been visiting the site for a greater amount of time?

2.7. Gender

Gender differences and social media have been keenly researched (Hargittai, 2007; McAndrew & Jeong, 2012; Muscanell & Guadagno, 2012; Raacke & Bonds-Raacke, 2008). Although findings have been mixed, user behavior on social media is influenced by demographic variables such as gender (Lin & Lu, 2011). For example, in a study about social networking, in comparison with males who used the sites more for new relationships, females were found to engage more in relationship maintenance (Muscanell & Guadagno, 2012). It is, therefore, plausible to assume that there may be gender differences in how YouTube is utilized, leading to the following question:

RQ5. To what extent are individuals' YouTube use gratifications associated with gender?

3. Research methods

3.1. Data collection and sampling

A pilot survey was designed and hosted on Qualtrics. Based on the feedback received, necessary improvements were made in the survey design. As a precaution, a screening question at the beginning of the survey excluded those who did not use YouTube in the past two months. Employing a convenience-sampling frame, the final version of the survey was sent out randomly to students via email at a large mid-western university. Students are most avid users of social media and were therefore most relevant to this study.

Upon online survey's closing, a sample size of 1507 was obtained (about 9% response rate). Since only registered users can engage in participatory activities on YouTube, non-registered users were

excluded from the survey sample. 25 cases were removed from the dataset because they were either incomplete or only answered a few questions. After data cleaning, a total of 1143 registered YouTube users formed the actual sample size.

Data analysis was conducted by using SPSS 20.0. A descriptive analysis was utilized to summarize the sample and see emerging patterns in data. Following an exploratory factor analysis, an alpha reliability analysis shed light on the appropriateness of scales.

Since data was collected via a cross-sectional survey, possible issue of common method bias (CMB) needed to be addressed. CMB can potentially impact research findings as variance could be attributed to the measurement method instead of the research constructs (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Harman's one-factor test (Harman, 1976) was conducted to check for CMB. Nine factors emerged with eigenvalues greater than one in an un-rotated principal-component analysis of all independent and dependent variables. While one factor contributing to more than 50% of total variance is considered an indication of common method bias, the first factor in our analysis accounts for only 29.7% of the total variance. Therefore, none of the factors explain the majority of the variance, indicating that common method bias is not likely to be a serious problem.

3.2. Instruments and measures

The survey included questions to understand personal characteristics of the YouTube user population sample. Questions also gauged the frequency of YouTube use and how it was used. Five factors included in this study, related to U&G, were information seeking, giving information, self-status seeking, social interaction, and relaxing entertainment. Scales were created based on a set of questions that yielded good reliability and Cronbach's alphas for all scales were above 0.7 (see Table 2). U&G related items in the form of YouTube use motives were adapted from Dholakia et al. (2004), and rated on a 5-point Likert-type scale from "very unlikely" (scored as 1) to "very likely" (scored as 5). The five motives seemed to be most appropriate from an engagement perspective, in better understanding user participation and consumption.

The survey included the following statement to seek responses regarding the various dependent variables: "How often on average in any given week do you participate on the YouTube.com website by doing the following?" (Likes, dislikes, comments, shares, and uploads). Similarly, consumption on YouTube was measured through questions asking user's YouTube use behavior in terms of viewing videos and reading comments.

YouTube use motivations were measured with a set of 21 questions depicted in Table 2. An exploratory factor analysis based on the principal component solution with varimax rotation was used in SPSS to analyze the different YouTube motives. Retention of factors hinged upon eigenvalues greater than 1.0. As per expectations, five factors stood out as predictors of YouTube feature use (see Table 2). The set of questions were loading on each of the five factors were summed and averaged to create scales.

Seeking Information scale ($\alpha = 0.83$) comprised four items, which included questions in reference to gaining information and learning how to do things. This is a primary motivation for participation in an online community. Giving information scale ($\alpha = 0.91$) comprised three items about providing others with information and to contribute to a pool of information or to generate ideas.

Self-status seeking scale ($\alpha = 0.88$) consisting four questions, may be understood as the value derived from being accepted in a community and the feeling of being important (Baumeister, 1998). Self-status seeking may also involve impressing others and counts as participation criteria.

Social interaction scale ($\alpha = 0.91$) comprised four items. Dholakia et al. (2004) referred to social interaction as "maintaining interpersonal connectivity" and that scale comprised two-items. In this study, this scale is being referred to as social interaction since these terms encompass wider participatory and consumption behaviors on YouTube. Social interaction or maintaining interpersonal connectivity, "refers to the social benefits derived from establishing and maintaining contact with other people such as social support, friendship, and intimacy," (Dholakia et al. 2004, p. 244). Such contact with content and other online users leads to further participatory behaviors thereby enhancing social connections (Shao, 2009).

Park, Kee, and Valenzuela (2009) used four key factors including socialization, entertainment, self-status-seeking, and information seeking, to explain the motives for participating in Facebook groups. It was found that to satisfy socializing needs individuals were generally interested in "meeting and talking with others as well as getting peer support and a sense of community" (Park et al., 2009, p. 731). It is also common that users may join communities online to mitigate the effects of loneliness, meet like-minded people and gain social support (McKenna & Bargh, 1999).

It may be argued that social interaction on YouTube is somewhat different from such interactions on sites such as Facebook. In contrast with YouTube which is primarily for sharing videos, Facebook is "networking oriented" (Zhao, Wu, & Xu, 2010, p. 2). Facebook allows relationship maintenance often amongst existing relationships (Tong & Walther, 2011, p. 98). Moreover, it may be observed that YouTube differs in ways such that social interaction on YouTube is usually amongst weak ties or between individuals (YouTube users) who are mostly strangers. However, social interaction on YouTube involves both consumption and participation behaviors as in other social media platforms.

The relaxing entertainment scale had six questions. Relaxing Entertainment also showed good reliability ($\alpha = 0.84$). The scale included questions related to injecting humor into a discussion, relaxing, playing and interacting with others, and passing the time. Relaxing Entertainment may involve both consumption and participation. The scale also includes questions that are conceptualized in some studies as escapism. For example, escapism has earlier been used as a measure to understand motivations to use Twitter by Liu, Cheung, and Lee (2010). In the current study, relaxing entertainment forms a broader scale to account for variations of entertainment that include relaxation and escapism.

4. Results

A majority of the participants were female (63%), while males comprised 37% of the sample. Caucasian (80.1%) was the most predominant ethnicity in this study, followed by Asian (8.7%), African American (5.3%), Hispanic (4.5%), Mixed (0.6) and Native American (0.8%). The mean age of respondents was about 24 years ($m = 24.28$, $sd = 7.5$).

Before conducting the regression analyses, the variance inflation factor (VIF) value was measured to identify the presence of multicollinearity (see Table 3). Multicollinearity was not an issue for any of the constructs explored in this study, since the tolerance was greater than 0.10 for all variables in the model, and VIFs were well below 5.0 (Steven, 2001).

To address the research questions in this study, separate Ordinary Least Square (OLS) regressions were run. In these regressions, the different YouTube feature use variables or the participation and consumptions acts were treated as dependent variables (Likes, dislikes, comments, shares, uploads, views, comment reading). Since media use is influenced by individual motives and demographic variables such as age and gender (Kang, 2002), these were included in the overall regression model. The independent

Table 2
Motives for YouTube consumption and participation: Means and primary factor analysis.

	Means	Loading	Eigenvalue	Variance	Alpha
Factor 1: Seeking Information	3.03				
To get information about things that interest you	3.45	0.78	1.35	6.45	0.83
To learn how to do things	3.42	0.78			
To find out what is new out there	2.65	0.72			
To keep up with current issues and events	2.57	0.69			
Factor 2: Giving Information	2.03				
To provide others with information	2.20	0.81	1.0	4.67	0.91
To contribute to a pool of information	1.92	0.78			
To generate ideas	1.98	0.79			
Factor 3: Self-Status Seeking	1.43				
To impress other users	1.63	0.59	1.79	8.5	0.88
To feel important	1.41	0.79			
To make myself look cool	1.39	0.82			
Because I feel pressured to do so	1.30	0.79			
Factor 4: Social Interaction	1.46				
To stay in touch with other users	1.46	0.78	3.20	15.2	0.91
To meet interesting people	1.40	0.85			
To feel like I belong to a community	1.43	0.84			
To connect with people who share some of my values	1.56	0.83			
Factor 5: Relaxing Entertainment	3.49				
To be entertained	4.17	0.71	7.77	37.0	0.84
To enjoy	4.13	0.78			
To play	2.88	0.58			
Because I have nothing better to do	2.99	0.74			
To relax	3.30	0.75			
To pass the time when bored	3.46	0.83			

Note: All items shared a common prompt: "On average in any given week, express how likely it is that you use YouTube.com website … ?" and were measured with a 5-point Likert-type scale ranging from "Very Unlikely" to "Very Likely."

Table 3
Multicollinearity analysis of independent variables.

Measure	Tolerance	VIFs
Information Seeking	0.64	1.55
Giving Information	0.60	1.67
Self-Status Seeking	0.69	1.44
Social Interaction	0.59	1.70
Relaxing Entertainment	0.78	1.28
YouTube Visit Frequency	0.77	1.31
Registered by Real Name	0.99	1.01
Experience	0.96	1.04
Gender	0.94	1.06

variables thus comprised YouTube use, gender, anonymity, experience, and the five main motive scales. The hypotheses were tested at a 0.05 significance level.

4.1. YouTube motives for participation

Multiple linear regressions were calculated to predict YouTube users' participatory acts based on motives (information seeking, giving information, self-status seeking, social interaction, and relaxing entertainment), anonymity, gender, YouTube visit frequency, and experience. Table 4 depicts the regression outputs for the YouTube participation or click-based behaviors with the beta weights and the p-values.

For the model comprising video Likes, a statistically significant regression equation was found ($F(9, 1131) = 37.509$, $P < 0.001$) with an adjusted R^2 of 0.224. Similarly, for video Dislikes, a statistically significant regression equation was found ($F(9, 1129) = 16.434$, $P < 0.001$) with an adjusted R^2 of 0.109. A statistically significant regression equation was found for writing Comments ($F(9, 1128) = 37.314$, $P < 0.001$) with an adjusted R^2 of 0.223; and Share videos ($F(9, 1129) = 28.099$, $P < 0.001$) with an adjusted R^2 of 0.176. Lastly, among participatory acts, for Uploading videos a statistically significant regression equation was found ($F(9, 1127) = 16.582$, $P < 0.001$) with an adjusted R^2 of 0.110.

The first set of research questions (RQ1a, RQ1b, RQ1c, RQ1d, RQ1e) addressed the motivations for participation on YouTube in terms of liking, disliking, commenting, sharing and uploading.

Information seeking motive proved to be a significant positive predictor ($p < 0.05$) for liking, disliking, and commenting. Giving information was positively significant for all participatory acts (liking, disliking, commenting, sharing, and uploading videos), and had the strongest relationship ($\beta = 0.345$) with sharing videos. Self-status seeking was a significant negative motive for liking ($\beta = -0.078$), a negative motive for sharing ($\beta = -0.077$) and a positive motive for uploading videos ($\beta = 0.083$). Social interaction had a significant positive relationship for all participatory actions except for YouTube participation in the form of sharing a video. The social interaction motive had the strongest relationship with commenting ($\beta = 0.253$). The other betas for social interaction equaled .166 for likes, 0.118 for dislikes, and 0.133 for uploading videos.

Regarding RQ1a, liking was predicted by all motives (information seeking, giving, self-status seeking, social interaction and relaxing entertainment). Liking was also positively predicted by YouTube visit frequency or the number of times a person visited the site ($\beta = 0.156$); and negatively by experience or the total number of years an individual was acquainted with the site and had been visiting it ($\beta = -0.058$). Dislikes of YouTube videos (RQ1b) was predicted by information seeking and sharing, social interaction and relaxing entertainment. Besides these motives, disliking was positively predicted by gender ($\beta = 0.090$) such that being a male was more likely going to lead to the disliking of videos.

Commenting on YouTube videos (RQ1c) was predicted by information giving, self-status seeking, and relaxing entertainment motives. Furthermore, commenting was also predicted by YouTube visit frequency ($\beta = 0.186$), and gender ($\beta = 0.086$) implying that males were more likely to comment on YouTube videos in comparison with females.

RQ1d was concerning sharing behavior of YouTube videos.

Table 4
Regressions predicting YouTube participation actions.

	Like		Dislike		Comment		Share		Upload	
	β	Sig.	β	Sig.	β	Sig.	β	Sig.	β	Sig.
Information Seeking	0.129	0.000	0.098	0.008	0.091	0.008	0.029	0.411	0.058	0.114
Giving Information	0.107	0.004	0.108	0.007	0.125	0.001	0.345	0.000	0.150	0.000
Self-Status Seeking	-0.078	0.025	-0.024	0.515	-0.059	0.089	-0.077	0.032	0.083	0.026
Social Interaction	0.166	0.000	0.106	0.003	0.253	0.000	0.012	0.724	0.133	0.000
Relaxing Entertainment	0.174	0.000	0.118	0.000	0.017	0.582	0.183	0.000	-0.026	0.423
YouTube Visit Frequency	0.156	0.000	0.037	0.256	0.186	0.000	0.008	0.808	-0.033	0.312
Registered by Real Name	0.027	0.295	-0.005	0.855	-0.032	0.226	0.062	0.023	0.062	0.027
Experience	-0.058	0.029	-0.013	0.658	-0.050	0.060	-0.019	0.485	-0.026	0.355
Gender (0 = female, 1 male)	-0.002	0.947	0.090	0.002	0.086	0.001	-0.078	0.005	0.021	0.478
Adjusted R-Square	*0.22*		*0.11*		*0.22*		*0.18*		*0.11*	

β = Beta, the standardized regression coefficient.

Results indicate that giving information, self-status seeking, and relaxing entertainment motives predict sharing. Moreover, an individual being registered by the real name (β = 0.062) and gender (β = −0.078) whereby males were less likely to share videos.

Amongst the participatory behaviors, uploading videos on YouTube was predicted by giving information, self-status seeking, and social interaction motives. In addition, being registered by the real name (β = 0.062) was predictive of sharing YouTube videos.

4.2. YouTube motivations for consumption

Table 5 depicts the regressions for the dependent variables of viewing videos and reading comments. Both of these variables have been characterized as consumption acts on YouTube. In terms of content consumption on YouTube for Viewing Videos, a statistically significant regression equation was found ($F(9, 1131) = 66.681$, $P < 0.001$) with an adjusted R^2 of 0.341. For Reading Comments also, a statistically significant regression equation was found ($F(9, 1132) = 48.850$, $P < 0.001$) with an adjusted R^2 of 0.274.

RQ2 was about understanding the motivations for consumption on YouTube in terms of viewing videos and reading comments. Results revealed that viewing videos (RQ2a) were predicted by information sharing, self-status seeking, and relaxing entertainment motives. In addition, YouTube visit frequency was highly predictive of viewing videos (β = 0.377).

In reference to RQ2b, reading comments were predicted by information seeking, giving information, and relaxing entertainment motives. Amongst other factors, YouTube visit frequency (β = 0.201), registered by the real name or anonymity (β = −0.076), and gender (β = 0.072) were predictive of reading comments.

Self-status seeking motive negatively predicted viewing videos. Seeking information and relaxing entertainment motives are factors that were highly significant in explaining a user's behavior of viewing videos and reading comments on YouTube.

Table 5
Regressions predicting YouTube Consumption acts.

	View videos		Read comments	
	B	Sig.	β	Sig.
Information Seeking	0.116	0.000	0.244	0.000
Giving Information	0.052	0.126	0.082	0.022
Self-Status Seeking	−0.073	0.022	−0.058	0.087
Social Interaction	−0.060	0.056	0.018	0.592
Relaxing Entertainment	0.238	0.000	0.175	0.000
YouTube Visit Frequency	0.377	0.000	0.201	0.000
Registered by Real Name	0.034	0.163	−0.076	0.003
Experience	0.045	.066	−0.036	0.159
Gender (0 = female, 1 male)	0.020	0.430	0.072	0.006
Adjusted R-Square	*0.34*		*0.27*	

β = Beta, the standardized regression coefficient

4.3. Anonymity

RQ3 was about the likelihood of user participation (like, dislike, comment, share, upload) on YouTube if they were anonymous users. Anonymity did not prove to be a significant predictor for liking, disliking and commenting behaviors. However, anonymity did positively predict sharing and upload participatory behaviors. In other words, if a user were registered on YouTube by their real name, they are more likely to share and upload videos.

4.4. YouTube experience

The fourth research question (RQ4) was about users likely to get engaged in participation on YouTube if they have been visiting the site for a greater amount of time (termed as YouTube Experience in Tables 4 and 5, and measured by the number of years a user visited the site). Results show that the number of years a user has been visiting YouTube (experience) was negatively predictive of liking behaviors. This implies that the more experienced an individual were with YouTube, the less likely were they to like on the site.

Another measure to understand participation in this realm is the YouTube visit frequency (5 -point measure, visiting the site several times a day or less to once a month or less). YouTube visit frequency was positively predictive for liking and commenting behaviors. This simply means that the more a person visited the site, the more likely were they to like and comment in terms of participation.

4.5. Gender

Gender was also another factor that predicted participatory behaviors in terms of disliking, commenting, and sharing. As depicted in Table 4, being male is positively predictive of disliking (β = 0.09) and commenting behavior (β = 0.086), and negatively predictive of sharing (β = −0.078) on YouTube. Negative beta implies that the independent variable (gender) is negatively correlated with the dependent variables. This addresses the fourth research question (RQ4) concerning YouTube gratifications associated with gender. In terms of consumption on YouTube, gender is positively predictive of reading comments. In other words, males are more likely to read YouTube comments than female users.

5. Discussion

This study is an effort in examining YouTube engagement viewed from a user participation and consumption perspective. In

terms of this study's theoretical contributions, which are centered on the U&G framework, the research provides insight into specific user motives and how they predict YouTube use. A better understanding of user behavior and their engagement strategies can also help organizations and social media managers design more targeted engagement strategies.

5.1. Understanding the liking phenomenon

Liking content on social media seems to be a common and pervasive behavior. The results of this study also demonstrate that information seekers, information givers, self-status seekers, socializers and entertainment seekers all have one YouTube feature use in common—they like videos. In other words, the act of liking a YouTube video was predicted by all of the motives. The act of liking may underlie different psychological processes such as that individuals with even varied preferences share this basic participatory act.

The frequency of YouTube visit is a positive but predictor ($\beta = 0.138$, $p < 0.01$) of liking content on YouTube. In the overall model (Table 4), only gender and anonymity variables are not predictive of liking behaviors. This implies that it does not matter if one has an anonymous profile or is male or female. Liking is a participatory act that is done by most.

Participation in the form of liking and sharing are valuable for both users and the organization simply because such behaviors promote engagement and allow the web to be experienced more socially (Gerlitz & Helmond, 2011).

5.2. Information seeking

According to Shao (2009), information seeking "is driven by people's desire to increase awareness and knowledge of one's self, others, and the world" (p. 10). Previous U&G studies have also found information seeking (besides entertainment) as a common motive for media use (Katz et al., 1973; McQuail, 2000). Based on the results of this study, it may be concluded that a typical YouTube user who has the information-seeking motive is likely to engage in participatory acts of liking or disliking videos, and commenting on them. An information seeker would not typically share videos or upload them (also evident from the results in Table 4).

Results also showed that liking and disliking were predicted by information seeking motive. Similarly, YouTube users may comment to solicit questions and seek information. Rafaeli (1986) viewed information seeking (and entertainment) motive as an important factor of media use. While liking and disliking content may not seem to be related to information seeking, they may form the basis that further triggers information seeking behavior. In some instances, users may casually like and dislike content because they were viewing a video for information seeking purposes.

Information seeking can be a crucial motive to be cognizant of from a user's perspective especially for organizations. In terms of YouTube consumption, users seeking information was a statistically significant factor in predicting both viewing videos ($\beta = 0.116$, $p < 0.05$) and reading user comments ($\beta = 0.244$, $p < 0.01$). It has been found that users not only seek information through viewing videos but also through reading comments. YouTube comments are least inhibited since they are usually not moderated and thus may offer valuable information to users in the most informal setting possible.

5.3. Information giving on social media

Individuals and businesses that have social media presence are increasingly interested in knowing about ways in which they can enhance user participation and therefore overall engagement with their brands. For example, by knowing people who are motivated to participate by the information-giving motive can be provided avenues through which they are encouraged to provide information via liking, commenting, sharing and uploading.

The information-giving motive proved to be a common predictor for all sorts of participatory acts on YouTube. It is also evident from the results in Table 4 that the strongest predictor of sharing videos is the information-giving motive.

YouTube is designed as a content-sharing site (Chau, 2010). This content sharing is mostly in the form of sharing videos, making YouTube the largest video-sharing site in the world. According to the results of this study, an individual who wants to provide information to others is likely to do so by either liking or disliking a video, through commenting, sharing and uploading a video. This seems understandable because a typical YouTube user can engage in any of the participatory acts and provide information to others. However, what is new to understand here is that information giving, as traditionally believed is not only through sharing of video content. Information giving is also made possible through user interactivity and participation that could range minimally from a simple like to a video upload.

Social media tools are, therefore, ideal for providing information, by virtue of promoting maximum user participation. Such varied user participation (likes, dislikes, comments, shares, and uploads) may not be possible on platforms outside the realm of social media. A simple act of liking or disliking a video gives other users information about the content.

5.4. Explaining social interaction on YouTube

Engagement with YouTube content as well as interaction with other users is an important means of fulfilling the social interaction need. The motive of social interaction by users was logically reflected in almost all participatory acts (like, dislike, comment, and upload) except sharing videos. In other words, those who want to socialize on YouTube are likely to like/dislike videos, comment and upload them. This is interesting since it may be commonly thought that in order to socialize a user may share videos. This could be explained by the fact that sharing videos through YouTube could be done in a number of ways. A user may share content on other social media platforms such as Twitter or Facebook. It is also possible that users may share content by sending a link to their emails. Future research can further probe this point to unearth a better understanding of the sharing behavior especially in light of social interaction motive.

Results in this study also show that the strongest predictor of social interaction on YouTube is the commenting behavior. YouTube amongst various social media platforms has a strong social aspect to it, whereby users maintain connections with others via commenting (Lange, 2007). One of the norms on YouTube is commenting and community feedback on videos (Siersdorfer, Chelaru, Nejdl, & San Pedro, 2010).

Commenting in order to socialize on YouTube is thus understandable since by writing comments, a typical user may start or be part of a discussion centered on the content of the video or otherwise. On social media, comments on certain content reveal an individual's involvement or concerns. This finding relates to earlier findings by Lange (2007) in which interviews revealed, "intelligent commentary on a video could stimulate closer social interactions" (p.376). Interestingly, social interaction is not limited to commenting. This study extends the understanding of the social interaction motive to include participatory acts such as liking, disliking, and uploading videos in order to socialize. Such

participation is vital for the formation and maintenance of online communities (Shao, 2009).

5.5. YouTube for relaxing entertainment

Entertainment is valuable in terms of providing escapism, enjoyment, anxiety relief, and relaxation (McQuail, 2005). According to the results of this study, those users who seek entertainment are likely to like ($\beta = 0.174$, $p < 0.01$), dislike ($\beta = 0.118$, $p < 0.05$) videos, and share ($\beta = 0.183$, $p < 0.01$) them, but not comment or upload them. In terms of consumption behaviors, entertainment served as a strong positive predictor of viewing videos ($\beta = 0.238$, $p < 0.01$) and reading comments ($\beta = 0.175$, $p < 0.01$). This confirms the findings of a previous study by Lampe et al. (2010) in which entertainment was a predictor of users participation on an online site. Nov, Naaman, and Ye (2010) viewed entertainment as an intrinsic motivation encouraging users to share online photos. Amongst other motives, entertainment was also found to positively influence social media interactivity (Hsu, Chang, Lin, & Lin, 2015), and can affect the decision to use social media (Lee & Ma, 2012).

This study also adds to the body of knowledge in the field by informing us that users can seek entertainment by not only viewing videos but also reading comments. Additionally, entertainment is also sought by liking/disliking content. Another interesting insight from these findings is that users were reading comments for entertainment but did not write for the same purpose.

This finding is regarding most users reading comments versus writing them. This finding provides insight to organizations and businesses having YouTube presence that, (a) users seek entertainment through various means, (b) users like reading comments to be entertained. This implies that if media managers want to encourage a free flow of content in the form of user comments that may attract other users to their video content.

5.6. Role of anonymity in video sharing and uploading

Anonymity concerns the notion that a user is free from being identified (Wallace, 1999), to include “secrecy and lack of distinction” (Scott & Orlikowski, 2014, p. 5). Results in this study support participatory engagement in the form of sharing and uploading when users are non-anonymous. Various factors can explain why uploading and sharing stood significant.

Sharing and uploading content signify a higher form of engagement (Muntinga, Moorman, & Smit, 2011). This may explain why YouTube users may consciously choose to share and upload videos when they are doing so when registered on the site by their real name. In addition, sharing videos from YouTube could possibly involve connecting to other social media platforms such as Facebook and Twitter which may have stricter policies regarding identifying by one's real name.

Results for participatory acts of liking, disliking, and commenting were insignificant when users identified themselves by their real name. This may be understood by the prevailing environment on YouTube where derisive comments may be quite commonly observed. YouTube is believed to have widespread flaming in comments (Khan & Solomon, 2013). Flaming is defined as hostile and strong expression of emotions where conversations take a nasty tone (Lea, O'Shea, Fung, & Spears, 1992). Consequently, such perceptions of negativity in the form of flaming may encourage users to have an anonymous identity to avoid negative interactions. However, when users upload videos on YouTube, they may feel that they have a greater degree of control, as commenting feature can be disabled by YouTube by channel owners who may more likely be identifiable by their real names. Additionally, results in this study also showed that users upload video for self-status seeking, and social interaction, therefore, they are more likely to do so with their real names. Further research in this area may provide insight into this phenomenon.

5.7. Examining the role of gender on YouTube engagement

A Pew Research involving teens showed that females are just as likely to upload video online as males (Lenhart, 2012). In this study, there was no difference in the uploading behavior by gender. However, the likelihood of an individual being a male was positively predictive of disliking a video ($\beta = 0.90$, $p < 0.05$) and commenting ($\beta = 0.086$, $p < 0.05$) on a video. On the other hand, being a male was negatively predictive of sharing ($\beta = -0.078$, $p < 0.05$) a video on YouTube. This may imply that males may feel less inhibited to express dissatisfaction or disagreement with some content as compared to females. Males are also more likely to comment than their female counterparts. A range of factors can explain these differences.

Earlier studies have shown that there are differences between males' and females' use of computers. In the late 1990s, Durndell and Thomson (1997) found that males are more competent and experienced than females in terms of computer use. Males and females were also found to differ in their styles of Internet use and their attitudes towards computer technologies (Jackson, Ervin, Gardner, & Schmitt, 2001). For example, based on a survey of undergraduate students, Jackson et al. (2001) indicated that females reported greater computer anxiety and less computer self-efficacy than males, but used email more than males. Other studies have found that there isn't a major difference in the amount of time it takes for males and females to find information online (Hargittai, 2002).

More recent studies especially after the advent of social media show an encouraging picture regarding the female use of the Internet. For example, females are more active on social media such as Instagram (Sheldon & Bryant, 2016), and spend more time communicating with Facebook friends (Acar, 2008; Sheldon, 2008). Although the gender gap in computer and Internet use seems to be narrowing, and almost non-existent as we enter the second decade of the century, differences still exist; especially, when the level of privacy varies. Findings of this study confirm those differences especially when public social media is involved.

It may be argued that in comparison with Facebook, YouTube offers a lesser degree of control over managing privacy since the emphasis is on public videos. Most importantly, there is hardly any control on UGC in the forms of comments. Participation is, therefore, less inhibited and can often take extreme forms and include flaming. Flaming is quite common on YouTube (Moor, Heuvelman, & Verleur, 2010). The findings of this study also suggest that males are more likely to dislike videos and comment than females. These findings may corroborate with findings of previous research that showed that males are more open about disclosing personal information about themselves in comparison with females who are more cautious about privacy in online settings (Joinson, 2008; Litt & Hargittai, 2014; Malik et al. 2016). Moreover, males are less likely to share videos in comparison with females ($\beta = -0.078$, $p = 0.05$). This finding is aligned with previous research that found women to be more active on social media, whereby they may be more likely to share YouTube videos within their social networks.

In terms of content consumption on YouTube, results (see Table 5) show that being a male is predictive of reading comments ($\beta = 0.074$, $p < 0.01$) but not viewing videos. This means that males are more likely to read comments on YouTube, but gender does not play any role in whether they viewed videos. Again, this may be because females may be inclined towards avoiding reading and writing comments on YouTube.

5.8. Social media experience and user fatigue

As users visited YouTube.com for a greater number of years and hence became more experienced, the less likely were they to like and comment on the site. This may be seen in light of previous research by Bright, Kleiser, and Grau (2015) which discussed social media fatigue on Facebook. According to Bright et al. (2015), users showed a behavioral tendency to limit participation when they felt overwhelmed and had higher privacy concerns. Social media fatigue has also been discussed by Ravindran, Kuan, & Hoe Lian (2014) according to which a reduction in social media participation among other factors may result from a "natural maturing of the life cycle of the community to which the user belongs" (p. 2306). The results of this study may be explained by the social media fatigue phenomenon whereby users limit their participatory engagement as they become more experienced and have been visiting the site for a number of years.

6. Conclusion and research implications

This research extends our understanding of the different participatory and consumption behaviors on YouTube from an engagement lens. Findings from this study can benefit several audiences. This research can prove useful in guiding practitioners as well as researchers in having better social media strategies where YouTube is an element of the overall marketing campaign.

A major contribution of this study is about understanding the relationship between U&G and how user engagement manifests itself on YouTube. How users are motivated to participate and contribute has been a consistent theoretical and practical challenge over the years especially for those concerned with the design of such systems. Consistent with previous work in understanding social media use, it is clear that users have multiple motivations to use YouTube among different types of users.

For practitioners, this study provides a better understanding of social media engagement. Practitioners can also benefit by understanding the exact motivations that encourage participation. An understating of these motivations could provide further insight into how a particular site can distinguish itself as active, having maximum visitors who contribute and therefore reap the benefits of being a major player online. It is, therefore, vital to understanding the reasons why individuals to participate on sites like YouTube.

Insights were also provided about the role anonymity plays in impacting user behavior. Since the dynamics of user participation vary on different social media sites especially sites specialized in video-based content, this research can serve as a guide for individuals, organizations, and businesses that have a YouTube presence. Moreover, by understanding user motivations to participate and consume, it has become possible to know which motives relates to particular YouTube feature.

This research can also prove useful in having a better understanding of how organizations can attract maximum participation. This is because understanding user behavior forms the prerequisite of any marketing efforts. Encouraging user participation in the form of comments, likes/dislikes has benefits. It gives marketing information for products that may help organizations make improvements. Moreover, active user participation is vital in creating the image of an active audience. Sites that attract more comments, likes/dislikes, and views may achieve higher search-engine popularity rankings. When the reasons or motivations of participation are clearly known, better decisions can be made.

6.1. Limitations and future research

Through an evaluation of user motives against various YouTube feature uses, this study has provided valuable engagement-related insights into understanding user participation and consumption. Despite many contributions, this study is not without limitations. Firstly, this study employed existing motivation scales as opposed to open-ended questions that would have provided insight into factors that the current scales may have overlooked. Studies can likewise build on these measures to account for a greater variety of motives that would predict YouTube engagement.

The current study also employed a student sample which may impact the generalizability of its findings. However, it is notable that students were most relevant to this study because they comprise an age group that is most technologically savvy and are avid users of social media.

Future research can build upon this research to examine the broader psychological characteristics of users that may impact their participation and consumption behaviors on YouTube and other social media sites. Personality characteristics may also impact user behavior on such sites. It would be interesting to probe how personality impacts YouTube feature use. For example, an outgoing personality may engage in greater (or lesser) participation on the site in comparison with a person who is shy. Or on the contrary, a shy personality may find YouTube as a vent to engage in acts that may mitigate the effects of loneliness or isolation.

Lastly, as noted, some of the regressions have a low R-square. This may be viewed as a limitation of this study as lower r-squares fall short of accounting for the possible variance. A range of factors can be responsible for the low R-square. Besides the typical less than 50% R-square in contemporary social science, there may be other relevant variables that did not form part of this study such as personality, age, ethnicity, Internet literacy, and personal preferences, etc. Future research should build upon the scales used in this study and possibly expand them to include a greater variety of motives for user participation and consumption on social media sites, and include other factors that have the potential to impact engagement. Additionally, user participation can be compared across social media platforms such as between Facebook and YouTube, in trying to understand engagement better.

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