Full length article

Psychological factors behind the lack of participation in online discussions

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ABSTRACT

The majority of participants in online communities are lurkers, who browse discussions without actively contributing to them. Their lack of active participation threatens the sustainability of online communities. This review provides an understanding as to why the majority of participants in online communities remain silent. It specifies a variety of factors that come into play when people determine their level of participation: individual differences: need for gratification, personality dispositions, time available and self-efficacy; social-group processes: such as socialization, type of community, tendency toward social loafing, responses to delurking and the quality of responses; technological setting factors: technical design flaws, privacy and safety of the online group. All are factors that are liable to influence involvement in online communities.

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1. Introduction

The advent of new technologies has brought about an abundance of online communities. Membership of different types of groups allows users to participate online through reading and through posting user-generated information, such as expressing opinions or giving feedback on someone else's post (Himelboin, Gleave, & Smith, 2009). In this virtual discussion, users may exchange information with others whom they may never meet face to face and even create close relationships with one another (Lawson & Leck, 2006). Examples of such groups include Myspace, Slashdot, Usenet and Facebook.

Despite the necessity for user participation in online groups, research demonstrates that a marginal percentage of individuals contribute to online discussions. In fact, research shows that the majority of online community users are lurkers who play a passive role in virtual groups (Jones, Ravid, & Rafaeli, 2004; Kozinets, 1999; Nonnecke & Preece, 2000). According to the 90-9-1 rule, 90% of

users do not actively participate in online discussions, while 9% of users contribute to some degree, and only 1% of users account for almost all the online action (Nielsen, 2006a, 2006b; van Mierlo, 2014).

Empirical research suggests that when newcomers do actually post for the first time, this is actually usually their last (Joyce & Kraut, 2006). Consequently, turnover rates for newcomers are exceptionally high (Brush, Wang, Turner, & Smith, 2005; Nonnecke, 2000). The high turnover and low participation rates present a challenge for virtual communities which rely on the contributions of participants for their sustainability. Online communities are vulnerable when knowledge contributors have no assurances that those they are helping will ever return the favor (Faraj, Wasko, & Johnson, 2008). Lurkers fall into this category as they benefit from the knowledge of others without reciprocating (Wasko & Faraj, 2005). Such passive participation may have an undesirable effect on users, as websites may become less informative and may even be boring for both the active and passive participants. Lurker behavior is particularly problematic in smaller online communities where only a limited number of users are actually available to interact with one another. In addition, lurker behavior creates a challenge for e-democracy projects which build on civic participation to create a vibrant and pluralistic deliberation (Alonso,

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Pérez, Cabrerizo, & Herrera-Viedma, 2013). Studies of open government report a gap between the aspirations of e-democracy initiatives and actual levels of public participation (Perez, 2013).

In order to assist and encourage lurkers to transition into becoming more active members of the community, it is important to understand why such individuals choose to remain passive. This article aims to bridge the gap by identifying a typology of factors that contribute to lurker activities. There are many causes for the lack of participation which often interact together and encourage lurker behavior. Certain variables can be attributed to an individual's disposition whilst other determinants result from social processes and technological barriers.

The paper will provide a short review on online communities and participation. This is followed by our theoretical model for understanding lurking behavior, which we believe has three leading motivators: individual differences, social-group processes and technological setting. Next we provide support for this model and broaden the discussion to encompass the theoretical and conceptual background of online communities. Then follows a more in depth discussion on lurkers, after which an analysis of the individual differences, social-group processes and technological setting that influence lurker behavior is presented. The article concludes with recommendations for future research.

2. Theoretical and conceptual background

2.1. Toward an understanding of online communities

Online communities consist of individuals who communicate with each other by exchanging messages over the Internet (Joyce & Kraut, 2006). Online communities provide a platform for individuals to exchange information about a variety of different topics such as health, recreation, professional and technical subjects (Ridings & Gefen, 2004). These communities develop according to the needs of their creators and users.

The two primary functions of online communities are information exchange and social network interactions (Burnett, 2000; Ridings & Gefen, 2004). They also serve particular social functions such as facilitating public participation in democratic processes and collaborative knowledge production. Directed information exchange provides individuals with the framework to seek, provide and share information. TripAdvisor, is an example, of one such community, which enables individuals to post and request information regarding different vacation destinations. This takes another form in the shape of social interaction groups, these specifically enable individuals to build relationships and connect with others. Facebook is an example of this type of network community that enables individuals to connect with one another, exchange gossip, upload pictures and post their statuses. Research shows that there is often more user participation in social network groups than there is in those directed at information exchange (Nonnecke, 2000). Although there is some evidence of young people starting to leave Facebook, (Baumer et al., 2013), Facebook remains the largest online social network, reaching its 1.39 billion active users as of the third quarter of 2014 (Statista, 2015). Other popular social network services include Google Groups, Twitter and MySpace, LinkedIn and Pinterest and YouTube.

Based on the large membership of online social networking groups, it would appear that participants are more concerned with fulfilling their own needs for affiliation and belonging, than they are in exchanging or providing information. However both information exchange and social network online groups often take a significant amount of time to grow and develop and initial participation in these groups is often scarce and uneven (Joyce & Kraut, 2006; Sloep, 2008).

2.2. Towards an understanding of lurkers

There are many terms used to describe lurkers, including non-public participants (Nonnecke & Preece, 2000) and "read only participants" (Williams, 2004) and more negative labels, such as "abusers of common good" and "free-riders" (Kollock & Smith, 1996). Regardless of the different terms, there is a general agreement that lurkers are persistent, though silent and passive members of online communities who do not contribute to groups (Lee, Chen, & Jiang, 2006; Rafaeli, Ravid, & Soroka, 2004; Ridings, Gefen, & Arinze, 2006).

In contrast to lurkers, posters are active members in online discussions; hence they are generally regarded as more constructive members of online communities. A constant flow of contributors is needed in order to maintain online groups. The more active participants there are in online groups, the larger the pool of resources will be for the entire group, thus the lack of involvement among lurkers often serves as a threat to the continuity of online groups (Yeow, Johnson, & Faraj, 2006). From this perspective it seems that lurkers should be encouraged to participate more frequently in online discussions.

Although lurkers are almost invisible, it turns out that the majority of both posters and lurkers consider lurkers as part of the community. More importantly, none of the respondents to the survey showed resentment toward lurkers (Merry & Simon, 2010).

2.2.1. Factors that affect lurker behavior
In the words of Nonnecke and Preece (2001) "there is no single answer to why lurkers lurk" (p. 6). A variety of factors are often involved in determining the extent to which members participate in online communities. Lurker behavior varies among participants, and each individual is affected by different factors. In the diagram presented in Fig. 1, we present a typology of factors that will be explained in this article, and which we found to be relevant in influencing participation rates in online communities. This typology includes individual differences, social-group processes and technological setting factors (see Fig. 1).

2.2.2. Individual Differences
Individual differences refer to participants' different characteristics and intentions. Each individual's personality drives and motives impact on the extent to which he or she is inclined to engage in lurker or poster behavior. Four factors, which have been shown to impact on lurker behavior, will be discussed below. These include: need gratification levels, personality dispositions, time available and self-efficacy.

2.3. Need gratification

People go online in order to fulfill their social and emotional needs (Rau, Gao, & Ding, 2008). The degree to which users feel the need to post and interact with others is frequently a reflection of their deep socio-emotional desires. Tan (2011) suggests that pro-social attributes, such as online relationship gratification, significantly affect posting levels. For example, if an individual encounters significant satisfaction when posting online, then he or she is likely to become more motivated to continue their involvement in such discussions. The socio-emotional needs for attachment and belonging often lead individuals to commit to being part of a group and to participating (Sassenberg, 2002). Developing attachment to and friendships with others often motivates online members to continue to participate in groups. van Uden-Kraan et al.'s (2008) study suggests that participation enhances social and emotional wellbeing and has a positive influence on social self-esteem. It is likely that individuals with high social-emotional need gratification