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FACEBOOK, THE SPICE OF LIFE?

Research-in-Progress

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Abstract

Facebook is both a social and commercial entity. The large revenues generated by Facebook's context-based advertising system ($600 million in 2009), attest to the fact that people go to Facebook not just to socialize but also to learn about new products and services. When Facebook friends discuss commercial products, Facebook is providing the social platform for a commercial context. Since Facebook has features that expose people to new products, forms of entertainment, and social settings, it provides users with a great deal of variety of experience. The findings of this study show that feelings of satiation in one’s life motivate people to seek out variety on Facebook. Facebook’s ability to mediate this variety-seeking behavior is used to explain the dual nature of Facebook usage as both a commercial and social platform.

Keywords: Computer-mediated Social Networks, Facebook, Satiation, Variety-seeking behavior
Introduction

Among a large number of competitors, Facebook stands out as the leader in the emerging social media industry. As of February, 2010, the site supports over 400 million users worldwide. According to the company's website, more than 50% of Facebook users log in every day, and the organization has global reach, with nearly 70% of its user base located outside of the United States. Previous studies have examined various perspectives of Facebook including the way people perceive other users’ profiles, variations in Facebook behavior as it relates to searching for friends (Lampe, Ellison, and Steinfield, 2006), and examinations of Facebook’s implications for user privacy (Debatin et al., 2009), among others. Despite this wealth of research, very few authors have looked specifically at Facebook usage. Notable exceptions include the Social Exchange and Social Capital theories (Hu and Kettinger, 2008), Friendship theory (Jacks and Salam, 2009), and aspects of TAM (Premkumar, Ramamurthy, and Liu, 2008; Venkatesh et al., 2003). While these studies do examine social motivations for Facebook use, they fail to capture the dual-nature of the technology as both a platform for both social interaction and commercial consumption, and the underlying dual motivations (social and consumption-oriented) that drive Facebook usage. We address this gap in the literature by developing and then empirically testing our proposed research model that accounts for and provides an alternate explanation of this dual motivation of Facebook usage. Thus for the first time providing a comprehensive explanation of why so many users spend billions of hours on this interesting system.

Facebook is both a social and commercial phenomenon. The large revenues generated by Facebook’s context-based advertising system ($600 million in 2009), attest to the fact that people go to Facebook to learn about new products and services. Facebook delivers these personalized ads based on the detailed information contained in a user's personal profile (Debatin et al., 2010). Facebook users also engage in word-of-mouth advertising as they chat and read about their friends’ experiences. When Facebook friends discuss commercial products, Facebook is providing the social platform for a commercial context.

Since Facebook has all these features that expose people to new products, forms of entertainment, and social settings, it provides users with a great deal of variety of experience. For example, a person interested in meeting new friends can easily do so. At the same time, someone who wants only to interact with their existing friends is never forced to accept a new one. A user can also keep to themselves and consume some of the numerous games and applications available on Facebook individually. These are all examples of variety-seeking behaviors, which we define here as behaviors an individual engages in to bring new and different experiences into one’s life. Variety is an important part of the human condition, because repeat exposure to an experience impacts the preference the person holds for the experience in a process called satiation (Redden, 2008). Variety-seeking behaviors give a person control over feelings of satiation by providing a means of regulating the frequency of exposure to a particular experience (McAlister, 1982). Through the facilitation of variety-seeking behaviors, Facebook provides users with a measure of control over this phenomenon in both their social and consumption-based lives.

We propose that feelings of satiation offline manifest themselves online in the form of Facebook-mediated variety seeking, and that a person's levels of offline satiation in both a consumption and social context will be directly related to their intention to use Facebook. The objective of this study is therefore to explain the nature of variety-seeking and satiation in a Facebook context, and examine the multiple forms of variety-seeking possible using Facebook’s various features. Figure 1 offers a graphical representation of the theoretical relationship we propose between satiation, variety-seeking, and computer-mediated social network (CMSN) usage.

We define two aspects of satiation that correspond to the divergent streams of literature in marketing and sociology; Relational satiation and Consumptional Satiation. As we will discuss in greater detail, these two constructs function in a similar way, yet they are directionally opposite. Consumptional satiation refers to a decrease in enjoyment from consuming a product or service (Redden, 2008). When a person eats a jellybean, for example, they may enjoy it immensely; but that enjoyment decreases with every subsequent jellybean they consume (Redden, 2008). These feelings of satiation will eventually lead them to stop eating jellybeans and seek out alternatives until jellybeans are once again new and exciting (Redden, 2008). Relational satiation is an increase in enjoyment that stems from feelings of belonging and social acceptance (Baumeister and Leary, 1995). People who are relationally satiated feel that they belong and are valued by others. When a person is not relationally satiated, it drives them to seek out varied social experience, encouraging them to meet new friends, start new relationships, or reconnect with old acquaintances (Baumeister and Leary, 1995). In this paper we argue that Facebook offers a platform for engaging in variety-seeking behavior that gives a person control over both types of satiation, and that this control can be used to explain Facebook’s incredible popularity.
Literature Review

While CMSN, and Facebook in particular, have been given significant attention in the academic community, their currently exists no definitive model of Facebook usage. Early efforts in this area looked at the application of existing IS theories, for example the Technology Acceptance Model (Davis, 1989). However, the constructs provided by TAM, namely Perceived Usefulness and Perceived Ease-of-Use, may not be adequate indicators of Facebook usage, as Facebook users do not inherently find Facebook to be a “useful” system (Jacks and Salam, 2009). More recently researchers have recognized that the social elements of Facebook make it so phenomenally popular, and this has led to an expansion of Facebook and CMSN research into numerous theories of sociology including Social Capital Theory and Social Exchange Theory (Hu and Kettinger, 2008), Friendship Theory (Jacks and Salam, 2009) and various social extensions of TAM (Premkumar et al., 2008; Venkatesh et al, 2003). We propose that by limiting explanations of Facebook to the social realm, the extant literature fails to capture the consumption-based component of Facebook usage. Facebook users do not merely chat with friends and make new acquaintances. They consume a huge amount of media in the form of games, applications, and advertising. This study is an attempt to develop a theory of the extent to which the dual aspects of Facebook usage as a consumption-based and social technology can be explained based on Facebook’s ability to impact satiation through the mediation of variety-seeking behaviors.

Proposed Research Model

In this section, we present a model of CMSN usage in the context of Facebook. Feelings of consumptional and relational satiation are considered here as antecedents to an individual’s intention to engage in variety-seeking behaviors. We will argue that Facebook use affords great opportunity for variety of experience, thus the use of Facebook is shown to be positively correlated with tendencies towards variety-seeking behavior.

Satiation

Consumptional Satiation refers here to a person's feelings of satiation with commercial products, forms of entertainment and most other material wants (McAlister, 1982). We define this construct in the spirit of the extant marketing literature as the decrease in enjoyment that stems from repeat consumption (Redden, 2008). For consumption-based experiences, each repeat exposure decreases the individual's future preference for the experience (McAlister, 1982). For example, eating a jelly-bean makes one less interested in having another (Redden, 2008). In order to provide relief from consumptional satiation, a person must modify some aspect of the experience by incorporating an element of variety (McAlister, 1982). People enjoy listening to radio stations that play the same style of music, and often repeat many of the same songs. The station does not play the same song consecutively, however. Instead, they rotate the song selection. This variety in the play-list reduces feelings of satiation with any one particular song, so that by the time the first song comes back around, it is still enjoyable. With enough exposures, however, even the most enjoyable song will often become stale. Facebook contains a number of ways for users to lower their level of consumptional satiation. The site continually exposes users to a variety of new product offerings and experiences including text, videos, pictures, and numerous video games (Rao, 2008). This
content is in and of itself varied, but Facebook also exposes users to continued variety through advertisements of products and services (Gangadharbatla, 2008). Word-of-mouth advertising further increases the level of exposure, as friends learn about one another's experiences through chatting, reading about, and viewing pictures of their friends experiences (Trusov, Bucklin, and Pauwels, 2009). Even if they never purchase a product directly from Facebook, this constant exposure to new and varied consumption-based goods and services provides users with a source of relief from consumptional satiation.

Relational satiation refers to one’s feelings of satisfaction derived from their relationships with others (Baumeister and Leary, 1995). Baumeister and Leary, (1995) define this need to belong as a “fundamental human motivation ... to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships” (Baumeister and Leary 1995, p. 497). Just like consumptional satiation, feelings of relational satiation increase with repeat experience. However, unlike consumptional satiation, relational satiation is a desirable state (Baumeister and Leary, 1995). Those who lack feelings of relational satiation engage in variety-seeking behavior to bring enough varied social experience into their life. Only specific social interaction is capable of creating feelings of relational satiation. Basic social interaction, such as what a person might get from interacting with people while shopping, buying groceries, etc. is not enough to relationally satiate (Blau, 1964). Relational satiation is predicated on one participant's concern for the other, and these types of self-interested social exchange lack mutual concern (Powell, 1986). In fact, physical interaction is not explicitly necessary for generating feelings of relatedness. On the contrary, purely physical relationships, which are predicated on personal interest and devoid of mutual concern, lead to consumption satiation, as each repeat experience lowers the enjoyment gained from the act (O'Donohue and Geer, 1985). Facebook can create feelings of relational satiation in a number of ways (Gangadharbatla, 2008). Matchmaking algorithms group individuals based on common interests and shared concerns (Boyd and Ellison, 2007), and the level of interaction possible on Facebook allows users to develop and maintain lasting social bonds (Hu and Kettinger, 2008). Frequent interaction is facilitated through features that allow users to track friends via status updates, play collaborative games, and exchange digital gifts and personalized items (Boyd and Ellison, 2007). Finally, since Facebook makes geographical boundaries obsolete, it allows people to maintain close, personal, and lasting relationships across great distances. This may explain the tendency of Facebook users to have large numbers of friends. Where these people would otherwise be removed from a social network due to geographic constraints, Facebook allows for continued interaction (Ellison, Steinfield, and Lampe, 2007). We propose that Facebook provides the connective flexibility needed to create quality relationships capable of increasing feelings of relational satiation.

Figure 2. Proposed Research Model showing the relationship between Consumptional and Relational Satiation, Variety-Seeking Behaviors, and CMSN usage
Variety-Seeking Behavior:

In order to control satiation, people engage in variety-seeking behavior (McAllister and Pessemier, 1982; Redden, 2008). The concept of variety has been explored for years, and from many different directions. McAllister and Pessemier, (1982) provide an elaborate taxonomy of many types of variety-seeking behavior, including many that fall outside the scope of this paper. We focus here on five distinct types of variety-seeking behavior that possess two fundamental characteristics of interest for our study. First, they are directly observable, and therefore a measurement of a person’s likelihood to engage in the behavior can be obtained. Second, the variation of experience provided by these behaviors is motivation in itself for engaging in the behavior (McAllister and Pessemier, 1982). While these types of variety-seeking have been studied in either sociology or marketing contexts, this study makes a significant contribution to the extant literature by redefining these constructs in terms of their dual aspects of commercial and social variety-seeking. Only when defined in terms of these dual aspects do these variety-seeking constructs provide a suitable lens for studying Facebook as both a social and commercial platform for variety-seeking behavior.

Alternation among the familiar involves switching back and forth among familiar experiences. These are not new experiences, yet the switching process raises a person’s level of preference for the experience, as in our example of the radio station. Making the switch is in and of itself rewarding (Givon, 1984). For example, if a person eats Cheerios every morning, Wheaties becomes more satisfying simply because it is not Cheerios. Since both the rewards and potential consequences of making the switch are known from past experience, this type of variety-seeking entails little risk for the individual. A person can switch back and forth easily, and win some relief from satiation, which gives us the following hypothesis.

H1a: Feelings of consumptional satiation are positively related to an individual’s inclination towards alternation among the familiar.

In a social context, this type of alternation is fundamental to feelings of relational satiation. A deep relationship with one individual cannot satisfy the need for relatedness (Baumeister and Leary, 1995). Instead, people need frequent interaction with all those that they care about (Baumeister and Leary, 1995). Physical and psychological suffering has been linked to extended separation from a loved one (Sahlstein, 2004). Therefore we propose the following:

H2a: Feelings of relational satiation are negatively related to an individual’s inclination towards alternation among the familiar.

Facebook offers relief from both relational and consumptional satiation by allowing users to alternate among familiar experiences. The site is designed to support a network of connected individuals, and all aspects of Facebook’s design encourage frequent interaction among the members within a user’s social network. The many games and applications present in Facebook allow for alternation among a number of consumption-based experiences, all without leaving the familiar confines of the Facebook site (Rao, 2008). This ability to alternate among familiar alternatives is a core aspect of social network technology, and turns Facebook into a virtual “third-place” for users to spend their free time (Debatin et al., 2009; Rao, 2008). With this in mind, we propose the following hypothesis.

H3a: A person’s inclination towards alternation among the familiar is positively related to CMSN usage.

Individuals looking for totally new experiences engage in novelty-seeking behavior (Hirschman, 1980). In a consumption-based context, novelty-seeking means acquiring new products or trying out unfamiliar forms of entertainment (McAlister, 1982; Hirschman, 1980). Novelty-seeking behavior also occurs in a social context as when people form bonds and friendships with new individuals. A person with strong feelings of consumptional satiation may jump at the chance to acquire a new product, just as a person with low relational-satiation may consider a chance to meet someone new an exciting opportunity. Thus we propose the following hypotheses.

H1b: Feelings of consumptional satiation are positively related to an individual’s inclination towards novelty-seeking.

H2b: Feelings of relational satiation are negatively related to an individual’s inclination towards novelty-seeking.

Facebook’s system of context-sensitive advertising continually exposes users to new and personally relevant products (Debatin et al., 2009). At the same time, users constantly receive friend requests from outside their existing social network. These requests represent a constant stream of opportunity to meet new individuals. In
addition, current friends' status updates let interested users know about new goings-on. All told, Facebook users have plenty of opportunities to try out new experiences. With this in mind, we propose:

**H3b:** There will be a positive relationship between a person's inclination towards novelty-seeking and CMSN usage.

Satiation with a particular experience may also be directly linked to the information a person has about alternatives (McAllister, 1982). As individuals satiate on experiences, their curiosity increases for those things they have not experienced (Keon, 1980). Information-seeking behavior is a form of variety-seeking in which a person impacts satiation through the exploration of decisions they have made, thus assuring themselves that they are not missing out on potential enjoyment from making a different choice (Keon, 1980). We see this in society as well. Gossip, small talk and seemingly trivial information collection practices all play an important part in forming lasting social bonds needed for feelings of relational satiation (Dunbar, 1998). Just as collecting information about consumer products lets us know what we might be missing out on, “gossip in general can be seen as a corollary of our disposition towards society, which integrally involves figuring out where we and all others stand in relation to each other” (Tufekci, 2008). Thus, we propose the following hypotheses.

**H1c:** Feelings of consumptional satiation are positively related to an individual's inclination towards information-seeking.

**H2c:** Feelings of relational satiation are negatively related to an individual's inclination towards information-seeking.

Facebook facilitates information-seeking behavior by providing a robust medium for users to collect information about their friends' experiences through perusing their friends profiles (Boyd and Ellison, 2007; Hu and Kettinger, 2008; Tufekci, 2008). As users post pictures, videos, and write about their experiences, their friends are able to make informed decisions about the new products, as well as validate their relationships and status in the wider Facebook community (Boyd and Ellison, 2007). Facebook is so good at providing opportunities to collect information on others, that it has bolstered a community of Facebook lurkers. These individuals use Facebook for information-sharing almost exclusively. They seldom interact directly with other users, but instead spend a majority of their time merely collecting information on friends and acquaintances (Kwaifunip and Wagner, 2008; Wasko and Faraj, 2005). This gives us the following hypothesis.

**H3c:** There will be a positive relationship between a person's inclination towards information-seeking and CMSN-usage.

Computer-mediated social distinction is defined here as variety-seeking behavior undertaken with the purpose of acquiring resources that possess some perceived value within the user's social network (McAllister and Pessemier, 1982). For example, when a hot new gadget first arrives on the market, it may not be available in quantities that are sufficient to completely satisfy demand. A dearth of available information may also cause difficulty in gauging the item’s personal worth. The value assigned to these resources, therefore fluctuates based on the perceived value placed on it by the collective social network (Bikhchandani, Hirshleifer, and Welch, 1992). Possession of the resource brings with it an element of prestige in addition to any other benefits of ownership, and this prestige value can provide relief from consumption-based satiation above and beyond what would normally be attributed to the resource (McAllister, 1982). We therefore propose the following hypothesis.

**H1d:** Feelings of consumptional satiation are positively related to an individual's inclination towards computer-mediated social distinction behavior.

Facebook has a number of features that create exactly the kind of scarce resources needed for encouraging this type of variety-seeking. A simple example is a user's number of friends, which carries with it an element of social distinction (Boyd and Ellison, 2007; Debatin et al., 2009; Wasko and Faraj, 2005). Users have been shown to “collect” friends, since the number of friends a person has is perceived to be related to the user's virtual Facebook popularity (Utz, 2010). Utz, (2010) showed that Facebook users with a large number of friends are seen as more attractive than those with fewer friends (Utz, 2010). The friendship number therefore has some perceived value that is understood at the network level. Additionally, Facebook contains many applications and games that users can participate in to create these scarce resources. Farmville, an immensely popular online game accessed through Facebook, lets users invest time and effort in growing and maintaining virtual crops that are both rare and have perceived value within Farmville's player base. The experience of growing crops is quite repetitive and would quickly generate feelings of consumptional satiation were these feelings not simultaneously reduced by the social distinction gained through crop ownership. This gives us the following hypothesis.
H3d: There will be a positive relationship between a person's inclination towards computer-mediated social distinction behavior and CMSN usage.

The desire to follow the changing behavior of members of one's social network may also lead to variety-seeking. We define this type of behavior as computer-mediated social affiliation. A person's social-network is never static. Social networks change, and to maintain an affiliation within the network the individual must change as well. People “keep up with the Jones” by seeking out new ways to maintain social affiliation through compliance with changing social norms (McAllister and Pessemier, 1982). Computer-mediated social affiliation impacts experience satiation in the following ways. It builds feelings of relational satiation by allowing individuals to adapt to changing social environments, which results in increased opportunities for close social interaction within friendships that would otherwise deteriorate. Consumption-based experiences are more preferable when they contain an element of social affiliation. A person may keep coming back to games like Farmville because it grants access to a group of exciting people with whom the person has few other ties. We therefore propose the following hypotheses.

H1e: Feelings of consummational satiation are positively related to an individual's inclination towards computer-mediated social affiliation behavior.

H2d: Feelings of relational satiation are negatively related to an individual's inclination towards computer-mediated social affiliation behavior.

Computer-mediated social affiliation is perhaps the one variety-seeking behavior that Facebook and other social network sites do the most to promote (Boyd and Ellison, 2007; Wasko and Faraj, 2005). From the time a user joins Facebook and accepts their first friend request, they have joined a group that comes complete with socially acceptable behavior, social norms, and criteria for acceptance akin to anything available offline (Hu and Kettinger, 2008). Additionally, Facebook users are given the opportunity to join numerous other fan groups and groups related to specific issues of the day. All of these groups also come with their own respective norms. Facebook users therefore belong not just to one social-network, but to many. In order to continue to be accepted in these different contexts, they must imitate each network's respective leaders through engaging in variety-seeking behavior designed to uncover the criteria necessary for continued affiliation. We therefore propose the following hypotheses.

H3e: There will be a positive relationship between a person's inclination towards computer-mediated social affiliation behavior and CMSN usage.

Methodology

The research model for this study is tested using pilot data collected from 120 Facebook users. Participants were recruited from several undergraduate classes for which the students were given extra credit but participation was completely volunary. In order to obtain responses from a diverse demographic, the survey was also posted on the Facebook pages of some survey participants and their Facebook friends. Survey measures were adapted from marketing and sociological journals. Since this is a research in progress, instrument refinement and large scale data collection for further analysis is to be carried out. Participants were asked to answer two types of survey questions. The first set consisted of five point Likert scales ranging from 1 “strongly disagree” to 5 “strongly agree”. In addition, participants were asked several open ended questions including “What keeps you coming back to Facebook”, and “Have you ever been motivated to purchase a product you first heard about on Facebook.” CMSN was measured using two items 1) the frequency of use and 2) the individual’s total length of time using Facebook. Structural Equation Modeling (SmartPLS) was used to analyze this preliminary data.

Initial Results

Of the 120 people that took the pilot survey, fully 40% had used Facebook for a period greater than 3 years. The remainder had all used Facebook for between six months and three years, thus providing a strong experiential foundation to test our research model. All survey participants were over 18 years of age, with 75% being between 18 and 25 years old. More than half of survey participants reported using Facebook many times per day. Support was found for H1a, H1b, H. H2 was not supported. Partial support was found for H3, with H3a, H3c, and H3e supported. H3b and H3d were not supported. Initial results of this analysis are presented in Figure 3.
Discussion and Conclusion

The finding that consumption-based satiation motivates people to seek variety on Facebook is supported in our research. Thus, by providing an additional perspective that along with social needs, Facebook also provides a consumption-oriented use as well. Our proposed research model is able to explain 70% of the variance of CMSN usage. Notably, the significant relationship between novelty-seeking and usage suggests that Facebook is a valuable tool for unearthing brand new experiences. Several of the respondents, when asked if Facebook had motivated them to purchase a consumption-based product, said that Facebook is often the first place that they hear about products that they later purchased elsewhere. Facebook also shows an interesting relationship between information seeking and CMSN usage (T=1.977).

- I purchased concert tickets. I was motivated because I was unaware of the concert beforehand.
- If a friend suggests a song or makes a song title a part of their status I check it out.
- I keep up with my favorite authors via Facebook. When authors post about book releases, I know when the books become available.

The significant relationship between CMSN-affiliation and usage is very interesting (T=2.564). The findings suggest that Facebook allows users to track the social norms, customs, and consumption-based products (i.e. fashions) necessary to maintain affiliation with peer groups. It is a tool for “keeping up with the Jones”. Many of the respondents shared these sentiments when asked why they keep coming back to Facebook:

- Without (Facebook) I would feel so out of society.
- Really I just like to be nosy and see what everybody else is up to.
- By using Facebook its easy to find out a lot of information that would normally be harder to find out.
- If you aren't on Facebook then you are completely left out of the social loop, even amongst your own friends.

Lack of statistical support for Relational Satiation is probably due to some poor items in our measurements instrument. Despite this limitation we have found some directional support (negative path values) for some hypotheses related to Relational Satiation. But more research is needed to investigate this aspect further. We need to develop and refine our theoretical model as well as items in our measurement instrument. A large scale data collection is planned as part of future research to further investigate and refine the interesting preliminary findings.
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