

Using the PAD (Pleasure, Arousal, and Dominance) Model to Explain Facebook Attitudes and Use Intentions

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Abstract

This study examines the power of the PAD (pleasure, arousal, and dominance) model in explaining user attitudes toward the Facebook experience and intentions with regard to its continued use. The findings suggest that the PAD model does in fact explain a significant amount of the variation in attitudes toward Facebook use. Dominance has a direct and positive impact on both arousal and pleasure. Arousal also has a direct and positive impact on pleasure. Pleasure positively impacts attitudes toward Face-

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book use which in turn positively affects future use intentions with regard to Facebook. The implications of these relationships are discussed and suggestions for future research are provided.

The introduction and growth of social media, and its most popular platform Facebook, has provided fertile ground for social science researchers. The purpose of the present study is to look at some of the factors that may provide insight into why people use Facebook. Intuitively, the use of Facebook may be attributable to the emotional states that it contributes to. The purpose of this study is to investigate how these emotional states affect user attitudes toward Facebook and intentions to use it in the future. Emotional states are operationalized in this study through the use of the PAD model (pleasure, arousal, domination) as developed by Mehrabian and Russell (1974).

While the PAD model has been used in several other studies in attempts to better understand retail website aesthetics (Chang, Chih, Liou, & Hwang, 2014; Hsieh, Hsieh, Chiu, & Yang, 2014; Koo & Lee, 2011) it has never, as far as the authors can tell, been used as a predictor of the attitude toward, and intentions to use, Facebook specifically. Neither have the interrelationships of the three components of the PAD model been systematically examined in the context of Facebook.

Social Media

Why people use social media, and the types of behavior in which they engage while on social media, has

been the subject of significant theorizing and research. Underlying a lot of this work has been the Uses and Gratification Theory (UGT). This theory has its origins in the communications literature and assumes that individuals seek out media that fulfills their needs and leads to ultimate gratification (Lariscy, Tinkham, & Sweetser, 2011). The UGT also assumes that audience members are not passive consumers of media. Rather, consumers have power over their media consumption and assume an active role in interpreting and integrating media into their lives. Whiting and Williams (2013) applied the UGT to identify ten uses and gratifications for using social media to include: social interaction, information seeking, passing time, entertainment, relaxation, communicatory utility, convenience utility, expression of opinion, information sharing, and surveillance/knowledge about others.

Burke, Kraut, and Marlow (2011) focused primarily on the notion of social capital as a reason why people may use social media sites. Social capital reflects the benefits that derive from interpersonal relationships and the groups to which people belong. In their research, they identified three types of behaviors on social network sites. The first type of behavior is “directed communication with individual friends” and consists of personal, one-on-one exchanges (p. 572). A second type of behavior is “passive consumption of social news” and involves reading others’ updates (p. 573). The final behavior is writing for others’ consumption, which is labeled “broadcasting” (p. 573).

Novak (2008) identified 22 reasons for social media use, to include peer pressure, social interaction, information gathering, self-expression, self-esteem, and social capital. These 22 were subsequently reduced to four higher

order motivations for the use of social media: connect, consume, create, and control (4Cs) (Hoffman, Novak, & Stein, 2013). The connect motivation revolves around our desire to interact with other users (whether that be an individual or a business). This connection may be in lieu of, or in addition to, a more personal interaction. The consume motivation primarily involves our desire for information.

Online content (information) may either be deliberately sought (e.g. searching for product reviews) or simply encountered in the course of using a social media platform. The create motivation stems from the ability of social media users to develop their own content. The impression that we create (or hope to create) seems to be central to this motivation. Control, the final motivation, deals with control over content (shared or received), control over our interactions with others, and control over oneself when engaging in social media use. As pointed out by the authors, control behaviors “underlie the other Cs” (p. 35), and as such are critical to our understanding of social media use.

Facebook

Facebook remains the most popular social media site (with 72% of all Internet using people employing it), but showed no overall usage growth in 2015 (Duggan, 2015). Likewise, the engagement levels of Facebook users have stabilized with 70% of users checking in on a daily basis (unchanged from 2014). This is a significantly higher daily engagement rate than that seen with Instagram (59%), Pinterest (27%), Twitter (38%), or LinkedIn (22%). Demographic differences do exist with regard to Facebook use most noticeably in the areas of gender and age. Among

Internet users, females have a slightly higher propensity to use Facebook than men (77% versus 66%). Additionally, 82% of Internet using 18-29 year olds employ Facebook with only 48% of those age 65+ doing the same.

Why people use Facebook has been the focus of a significant amount of research. Nadkarni and Hofmann (2012) identified 42 evidence-based studies on factors that contribute to the use of Facebook and categorized these factors as: 1) personality characteristics, 2) demographic characteristics, 3) impression formation, 4) self-esteem, 5) social connectedness, 6) privacy issues, and 7) general uses of Facebook. After reviewing this literature they proposed a dual factor model by hypothesizing that Facebook use was primarily motivated by the need to belong, and the need for self-presentation. Cheung, Chiu, and Lee (2011) found that social presence (instant communication and connection with friends) was a major reason individuals use Facebook. Similarly, Dwyer, Hiltz, and Passerini (2007) reported that Facebook members use the site to manage relationships initiated offline, even where the protection of privacy is minimal. Wilson, Gosling and Graham (2012), in their review of the research involving Facebook, contended that researchers have either focused on external motivations (external press that encouraged users to engage in Facebook), or more commonly, internal motivations to try to explain why people use Facebook. With regard to internal motivations, 1) the desire to keep in touch with friends, 2) the development of social capital, 3) the conduct of social grooming, 4) the minimization of loneliness, and 5) the relief of boredom, are all reasons that have been looked at in trying to explain Facebook use.

Other research has focused on how personality

characteristics impact the use of Facebook. Ryan and Xenos (2011) found that Facebook users tend to be more extraverted and narcissistic, but less conscientious and socially lonely, than nonusers. Carpenter (2012) also reported that self-promoting behaviors associated with narcissism are commonly found on Facebook.

Hughes, Rowe, Batey, and Lee (2012) looked at the use of Facebook for informational purposes as well as for social purposes. For social purposes, they found that the use of Facebook was positively correlated with both sociability and neuroticism. For information purposes, the use of Facebook was positively related to neuroticism, extraversion, openness, and sociability and negatively related to conscientiousness and need for cognition. Moore and McElroy (2012) found that more extraverted people had more Facebook friends, but also reported less frequent use of Facebook. Those respondents with high degrees of emotional stability reported spending less time on Facebook but accessing it more frequently.

Ross et al. (2009) found some relationship between Facebook behavior and extraversion, but overall reached the conclusion that personality factors were not as influential in predicting Facebook use as the previous literature might suggest. A follow-up study (using measures other than self-reported usage) conducted by Amichai-Hamburger and Vinitzky (2010) claims to have found stronger relationships between Facebook behavior and personality.

Clearly people engage in Facebook use for a variety of reasons. Additionally, the use of Facebook does seem to be related to certain psychological traits. The present research proposes to add to our Facebook knowledge by look-

ing at the emotional states (as reflected through the PAD model) that may be created when one is on Facebook.

Pleasure, Arousal, and Dominance (PAD)

Mehrabian and Russell (1974) introduced the idea of using three emotional dimensions, pleasure, arousal, and dominance (PAD), to describe perceptions of physical environments. Pleasure deals with whether the individual perceives the environment as enjoyable or not, while arousal reflects the extent to which the environment stimulates the individual. Dominance captures whether the individual feels in control or not in the environment.

In the marketing domain, the PAD model has been used in assessing the emotions associated with television ads (Holbrook & Batra, 1987), the atmospherics in both retail (Donovan & Rossiter, 1982; Donovan, Rossiter, Marcolyn, & Nesdale, 1994; Turley & Milliman, 2000) and online contexts (Chang et al., 2014; Hsieh et al., 2014), and various consumption experiences (Havlena & Holbrook, 1986).

Even though the PAD model was originally configured with three components, pleasure and arousal seem to have been used to a greater extent by researchers than dominance (Bakker, van der Voordt, Vink, & de Boon, 2014). Donovan and Rossiter (1982) chose to omit the dominance portion of the PAD in their model as did Baker, Levy, and Grewal (1992). On the other side of the issue, Yani-de-Soriano and Foxall (2006) made convincing arguments for the continued inclusion of the dominance component.

Many studies that have employed the PAD model have considered the three components to be independent

of each other. However, some have made the claim, and found empirical support for, the notion that the components may affect each other. Hui and Bateson (1991), found that dominance (operationalized as control) had a positive and direct influence on pleasure in a service encounter. In a retail (restaurant) setting, Ward and Barnes (2001) found that dominance (again operationalized as control) had a positive and direct influence on both arousal and pleasure.

In their look at website aesthetics of online retailers, Chang et al. (2014), following the lead of Rafaeli and Reville (2006), divided arousal into two parts: energetic arousal and tense arousal. Energetic arousal (the variety generally focused on in psychological research) revolves around being invigorated, energetic, and refreshed while tense arousal involves feeling anxiety, nervousness, and restlessness. Their research found that control (dominance) positively impacted energetic arousal which in turn positively impacted pleasure. Conversely, control had a negative effect on tense arousal which in turn had a negative impact on pleasure. No direct relationship was found between control and pleasure.

Similarly, Koo and Lee (2011), in their study of online and offline shopping behavior, found dominance to directly and positively impact energetic arousal which in turn positively affected pleasure. Dominance was also found to negatively impact tense arousal but only in the case of offline shopping. Tense arousal was subsequently found to have a negative impact on pleasure. No significant direct relationship was found between dominance and pleasure. Finally, Hsieh et al. (2014), when looking at consumer electronic website atmospherics, found that both

dominance and arousal directly affected pleasure.

The reviewed PAD literature leads to a number of generalizations: 1) the PAD model is a useful tool in understanding the environments that individuals may find themselves in, 2) the three components of the PAD model are likely to impact each other, 3) the dominance component is capable of directly affecting both the arousal and pleasure components, and 4) the arousal component is capable of directly impacting the pleasure component. These generalizations contribute to the development of the following model and hypotheses.

Research Hypothesis and Proposed Model

It is reasonable to speculate that the PAD model is capable of explaining at least a portion of the attitude and behavioral intentions associated with Facebook use. Given this, the following five hypotheses are developed. These relationships are also represented graphically in Figure 1.

Arousal refers to the degree of excitement or stimulation felt by the individual. In the case of Facebook, individuals could become excited or stimulated if they were able to accomplish what they hoped to accomplish whether that be keeping in touch with others, relieving boredom or loneliness, creating an impression, building self-esteem, or discovery. Consistent with the notion of energetic arousal and previous research (albeit it in other contexts), hypothesis 1 is presented.

Hypothesis 1: The perceived arousal when on Facebook is hypothesized to have a positive impact on the perceived pleasure of the Facebook experience.

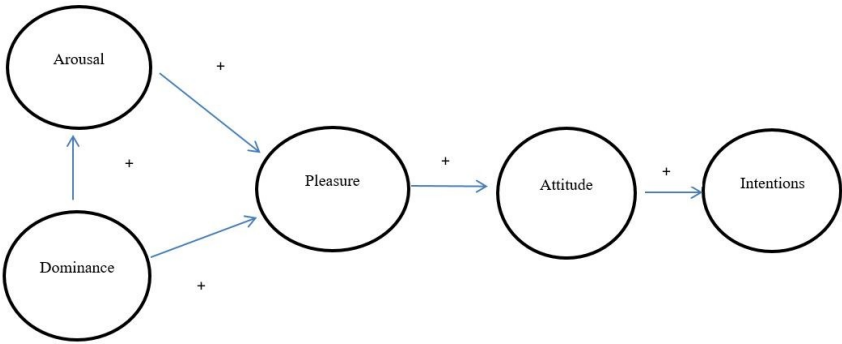


Figure 1. Proposed Facebook Model

Dominance refers to the degree to which individuals are in control or not in their environment. A perceived lack of control (dominance) would logically have a negative impact on the degree of excitement felt or stimulation achieved (arousal) and the degree of enjoyment (pleasure) attained. Consistent with this logic and previous research in other contexts, hypotheses 2 and 3 are presented.

Hypothesis 2: The perceived dominance when on Facebook is hypothesized to have a positive impact on the perceived arousal of the Facebook experience.

Hypothesis 3: The perceived dominance when on Facebook is hypothesized to have a positive impact on the perceived pleasure of the Facebook experience.

Pleasure refers to the degree to which the individual perceives the environment as enjoyable or satisfying. Intuitively, a pleasurable experience would likely result in a more favorable attitude toward Facebook. This logic is reflected in hypothesis 4.

Hypothesis 4: The perceived pleasure when on Facebook is hypothesized to have a positive impact on the attitude toward the Facebook experience.

The relationship between attitude and behavioral intention is well established in psychological theory. The Theory of Reasoned Action (TRA) as proposed by Ajzen and Fishbein, (1980) maintains that a person's behavioral intention is a function of his/her attitude toward the behavior and subjective norms. Hypothesis 5 reflects this perspective.

Hypothesis 5: The attitude toward the Facebook experience is hypothesized to have a positive impact on intentions of future Facebook use.

Methodology

Data was collected using a nationally representative Survey Monkey Audience sample of U.S. consumers age 18 and over. Respondents were not directly compensated for their participation, but a \$.50 donation was made upon their behalf to charity and they were entered into a sweepstakes for a \$100 prize. Institutional Review Board approval for the study was acquired through the home university of the three researchers. Potential respondents were made aware of the fact that participation in the study was voluntary and were assured of confidentiality. Informed consent to participate was provided by each respondent.

The questionnaire initially asked respondents whether or not they used Facebook. Those who answered affirmatively were then asked how long they had been using Facebook, how much time they spent on Facebook each

day, and how frequently they visited Facebook. The pleasure, arousal, and dominance (PAD) constructs were measured using six-item scales taken from Kulviwatt, Brunner, Kumar, Nasco, and Clark (2007) who attributed them to Mehrabian and Russell (1974). Attitude toward Facebook was assessed with a four-item scale taken from Kulviwatt, et. al. (2007) who adapted it from Bagozzi, Baumgartner, and Yi (1992). Intentions regarding future Facebook use was assessed using a two-item scale as developed by the authors. Respondent gender, age, household income, education level, and census region location were provided to the researchers by the panel administrators. The complete questionnaire (in condensed form) can be found in the Appendix A.

The data was analyzed using LISREL. Model fit assessment was conducted through Chi-square, root-mean-square error of approximation (RMSEA), as well as multiple fit indices of Comparative Fit Index (CFI), Incremental Fit Index (IFI), and Non-Normed Fit Index (NNFI). All hypotheses were tested using structural equation modeling.

Results

A total of 1,422 individuals responded to the survey. Of these, 1,075 (76.4%) indicated that they used Facebook. This percentage was slightly higher than the 72% of online adults found to use Facebook in the most recent Pew update (Duggan, 2015). As it is fairly well established that Facebook use varies across demographic groups, an analysis was made of the issue. Most significant were the differences with regard to Facebook use across gender (68.2% for males versus 81.3% for females), age (89.9% for the 18-29 year old segment versus 64.4% for

the over 60 crowd), and location (64.8% for the New England region versus 81.2% for the East South Central). The complete results of this analysis are presented in the Appendix B.

The 1,075 Facebook-using respondents had been on Facebook for an average of 4.1 years (median of 4 years, mode of 5 years), spent on average 1.69 hours per day on Facebook (median of 1 hour, mode of 1 hour), and visited Facebook on average 4.56 times per day (median of 3 times, mode of 1 time). The complete demographic characteristics of those respondents that indicated they used Facebook are presented in the Appendix C.

Coefficient alphas were calculated for each of the multiple item constructs. Values of .907, .748, .758, .971, and .947 were generated for the pleasure, arousal, dominance, attitude, and intentions constructs respectively. The values of the indicators for the five constructs are in Table 1.

The model yielded the fit indices found in Table 2 and the path coefficients presented in Figure 2. All of the path coefficients were significant at the .001 level (***) .

These results clearly provide support for all five research hypotheses. Arousal had a positive impact on pleasure (hypothesis 1) and dominance had a positive impact on both arousal (hypothesis 2) and pleasure (hypothesis 3). Pleasure positively impacted attitudes toward Facebook use (hypothesis 4) which in turn positively impacted the intentions to use Facebook in the future (hypothesis 5).

Discussion

The current study's purpose was to assess the vi-

Table 1
Construct Indicator Values

| Pleasure | Arousal | | Domi- nance | | Attitude | Intentions | | | |
|----------|------------|----|----------------|----|------------|------------|------------|----|------------|
| P1 | .45 *** | A1 | .40 *** | D1 | .92 *** | At1 | .87 *** | I1 | .74 *** |
| P2 | .48 *** | A2 | .68 *** | D2 | .96 *** | At2 | .85 *** | I2 | .68 *** |
| P3 | .72 *** | A3 | .76 *** | D3 | .96 *** | At3 | .88 *** | | |
| P4 | .73 *** | A4 | .64 *** | D4 | .94 *** | At4 | .79 *** | | |
| P5 | .59 *** | A5 | .52 *** | D5 | .60 *** | | | | |
| P6 | .47 *** | A6 | .55 *** | D6 | .59 *** | | | | |

***-significant at the .001 level

ability of using the PAD model to explain attitudes towards, and intentions to use, Facebook. Overall, the findings provide significant support for using the model in doing so.

The results clearly show that a feeling of dominance (or being in control) is critical to the Facebook experience. Dominance directly affects the arousal associated with being on Facebook and the pleasure that evolves from that interaction and indirectly affects attitudes toward Facebook use and intentions with regard to its continued use.

Because dominance in this research was looked at in a very general, non-context specific manner, one can only speculate on what the respondents were really thinking about when they responded to the six questions associated with this construct. Several possibilities come to mind and are likely worthy of mention.

First, perceived dominance may be a function of the

Table 2
Fit Indices

| | Chi-Square | DF | Ratio | Sig. | RMSEA | CFI | IFI | NNFI | Decision |
|---------------|------------|-----|-------|------|-------|-----|-----|------|----------|
| Overall Model | 2671.71 | 247 | 10.82 | .000 | .10 | .92 | .92 | .91 | Accept |

ease with which the user navigates, uploads, responds, locates information, and in general interacts with the software and others through Facebook. Facebook users who find that they are unable to accomplish what they hoped to because of technical complexities are not likely to feel in control.

Second, perceived dominance may be a function of the users' interactions with other Facebook users. Users who feel that they are low in the Facebook interaction hierarchy (e.g. not contributing as much in terms of quantity or quality as others) are not likely to feel in control.

Third, perceived dominance may be a function of the extent to which users feel that they are in control with regard to the nature and privacy of their own content. To the extent that the intended people are seeing the intended things, the user would be in control.

Fourth, perceived dominance may be a function of the extent to which users feel that they are in control with regard to others' content as it is being delivered to them. The concern in this context may be whether users feel that Facebook is in some way constraining what they are being exposed to or are able to access. This aspect of control is the one that seems to have dominated the popular press as of late with allegations of the suppression of thought by

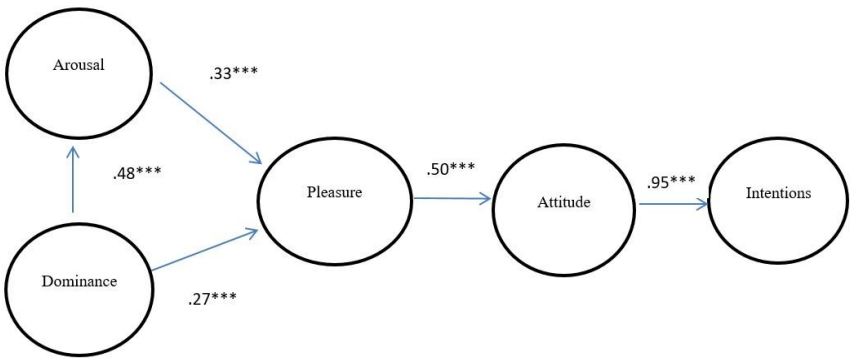


Figure 2. Path Coefficients

Facebook (Bump, 2016), questions with regard to the newsfeed algorithms employed by Facebook (Isaac & Ember, 2016; Luckerson, 2015), and most recently, questions of censorship in certain markets by Facebook (Isaac, 2016). Users who feel that they are in some way being manipulated or controlled with regard to what they are seeing (even if it is true or not) are not likely to feel in control.

Finally, there is a chance that perceived dominance is a function of the extent to which users feel that they are in control of themselves in the context of Facebook. Users that feel that they spend too much time on Facebook or behave and interact in ways that they wouldn't in a person-to-person setting may not feel as if they are in control.

While the previous paragraphs have addressed dominance in the Facebook context specifically, it is very likely that these principles would be as relevant in other online settings (an online shopping setting for example). Shoppers who question whether they are being manipulated, wonder about how their data is being shared with others, or are struggling with the complexities of the shopping site are not likely to feel in control.

In the present research, arousal was found to im-

pact directly the pleasure felt with the Facebook experience and to indirectly affect both attitudes toward Facebook and intentions to use it in the future. It was also found to be a function of, to some degree, the perceived dominance felt by the user. Obviously though, the arousal construct in the Facebook context is much bigger than just its relationship to dominance.

The commercial success of Facebook can logically be tied most directly to its ability to arouse its users. The elements of discovery, sharing, self-presentation and serendipity all have the ability to create the stimulation, energy, and excitement commonly associated with the construct of arousal.

In some sense, the core element of Facebook revolves around “sharing.” The relationship between sharing and arousal would seem to be a strong one (although the direction of the relationship might not be so obvious). Users likely share because they are excited (aroused) but it does seem somewhat plausible that they become excited (aroused) because they share. Nonetheless, this relationship would seem to exist and possibly be worthy of investigation.

Pleasure was found to have a significant direct effect on attitudes toward Facebook use and an indirect effect on behavioral intentions with regard to its use in the future. It was also found to be a function of, to some extent, the perceived dominance and arousal associated with the Facebook experience. Obviously, the total enjoyment or satisfaction (pleasure) involved with the Facebook experience is attributable to more than just these two factors.

Arguably, Facebook is successful because it helps us satisfy two fundamental human needs: the need to be-

long and the need for self-presentation (Nadkarni & Hofmann, 2012). To the extent that Facebook facilitates the attainment of these needs, we find enjoyment and satisfaction (pleasure).

Overall, the dominance component proved itself as a worthy addition in this look at emotional states. As was previously mentioned, this component is sometimes left out and/or perceived to be of less importance than arousal and pleasure. This study suggests that all three components are capable of contributing and as such suggests that Mehrabian and Russell (1974) were on the right track with their three dimensional model. Additionally, this research provides significant support for the assertion of Hoffman et al. (2013) that control is an important factor in understanding social media use.

Finally, the results also provide clear evidence of the interrelationships between the three components of the PAD model. Studies in which the three components are treated as being completely independent of each other may be missing much of the complexity, richness, and explanatory power of the PAD model.

Limitations and Future Research

Although this study did provide additional insight into the Facebook experience, a number of limitations do exist. First, findings were obtained from a single study. Therefore, caution must be exercised when generalizing the results to the entire consuming population. Second, this study assessed intentions to use Facebook in the future, rather than actual Facebook behavior (although it is well documented that behavioral intentions do commonly manifest themselves in actual behavior). Finally, although

the sample size in this study was relatively large, respondent participation was based on self-selection, and as a result, some selection bias could exist within the sample.

Additional research needs to be conducted on the role of dominance/control in the social media experience. As mentioned by Hoffman et al. (2013), research addressing control has been limited relative to other social media goal types. This is in spite of the fact that control behaviors are the “gateway for all other behaviors online” (p. 35). The present study only looked at control in a general sense while on Facebook. Future research may want to look at control in a more specific context (e.g. control over received content, control over shared content, control over others, and control over self).

Future research could also focus on the influence the PAD factors have on attitudes toward the Facebook experience, and intentions to use Facebook, across individual characteristics (e.g., gender, age, level of self-control), and across different cultures. As an example of this, some very preliminary research conducted by the authors suggests that the dominance component may be somewhat more important to arousal and pleasure in the case of men as opposed to females.

The present research focused on arousal in a general sense. Future research may want to differentiate between the energetic and tense forms of arousal and look at each in the context of Facebook. Future research may also want to look at the direct effects that the PAD model components may have on future intentions to use Facebook. For example, it would seem possible that arousal could have an effect on behavioral intentions to use Facebook

without necessarily affecting attitudes toward Facebook (somewhat analogous to impulse purchases in marketing).

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Appendix A: Questionnaire

Do you use Facebook?

How long have you been using Facebook (to the nearest whole year)?

On average, how much time do you spend on Facebook per day (to the nearest whole hour)?

On average, how many times per day do you visit Facebook?

For each pair of descriptors, please indicate how you typically feel while on Facebook.

| | | | | | | |
|-------------|---|---|---|---|---|-------------|
| Happy | 1 | 2 | 3 | 4 | 5 | Unhappy |
| Pleased | 1 | 2 | 3 | 4 | 5 | Annoyed |
| Satisfied | 1 | 2 | 3 | 4 | 5 | Unsatisfied |
| Contented | 1 | 2 | 3 | 4 | 5 | Melancholic |
| Hopeful | 1 | 2 | 3 | 4 | 5 | Despairing |
| Relaxed | 1 | 2 | 3 | 4 | 5 | Bored |
| Stimulated | 1 | 2 | 3 | 4 | 5 | Relaxed |
| Excited | 1 | 2 | 3 | 4 | 5 | Calm |
| Frenzied | 1 | 2 | 3 | 4 | 5 | Sluggish |
| Jittery | 1 | 2 | 3 | 4 | 5 | Dull |
| Wide-awake | 1 | 2 | 3 | 4 | 5 | Sleepy |
| Aroused | 1 | 2 | 3 | 4 | 5 | Unaroused |
| In Control | 1 | 2 | 3 | 4 | 5 | Cared for |
| Controlling | 1 | 2 | 3 | 4 | 5 | Controlled |
| Dominant | 1 | 2 | 3 | 4 | 5 | Submissive |
| Influential | 1 | 2 | 3 | 4 | 5 | Influenced |
| Autonomous | 1 | 2 | 3 | 4 | 5 | Guided |
| Important | 1 | 2 | 3 | 4 | 5 | Awed |

Overall, how would you describe your experience with Facebook?

| | | | | | | |
|-------------|---|---|---|---|---|-----------|
| Bad | 1 | 2 | 3 | 4 | 5 | Good |
| Negative | 1 | 2 | 3 | 4 | 5 | Positive |
| Unfavorable | 1 | 2 | 3 | 4 | 5 | Favorable |
| Unpleasant | 1 | 2 | 3 | 4 | 5 | Pleasant |

Please indicate your intentions regarding future Facebook Usage.

I plan to spend a lot less time on Facebook 1 2 3 4 5 I plan to spend a lot more time on Facebook

I plan to visit Facebook a lot less frequently 1 2 3 4 5 I plan to visit Facebook a lot more frequently

Appendix B: Do You Use Facebook by Demographics

| Demographic | Level | Use Facebook | Valid % |
|------------------------------|---------------------------------|-----------------|---------|
| Overall | | 1,075/1,407 | 76.4% |
| Gender | Men | 437/641 | 68.2% |
| | Women | 556/684 | 81.3% |
| Age | 18-29 | 187/208 | 89.9% |
| | 30-44 | 239/285 | 83.9% |
| | 45-60 | 319/447 | 71.4% |
| | >60 | 248/385 | 64.4% |
| Household Income | 0-24,999 | 209/274 | 76.3% |
| | 25,000-49,999 | 144/183 | 78.7% |
| | 50,000-99,999 | 285/382 | 74.6% |
| | 100,000-149,999 | 151/205 | 73.7% |
| | 150,000+ | 154/207 | 74.4% |
| Education | Less than High School Degree | 9/12 | 75% |
| | High School Degree | 92/130 | 70.8% |
| | Some College | 278/362 | 76.8% |
| | Associate or Bachelor Degree | 351/456 | 77.0% |
| | Graduate Degree | 263/365 | 72.1% |
| Location- Cen- sus Region | New England | 59/91 | 64.8% |
| | Middle Atlantic | 120/161 | 74.5% |
| | East North Central | 153/200 | 76.5% |
| | West North Central | 73/98 | 74.5% |
| | South Atlantic | 169/231 | 73.2% |
| | East South Central | 52/64 | 81.2% |
| | West South Central | 82/104 | 78.8% |
| | Mountain Pacific | 83/117 | 70.9% |
| | | 195/249 | 78.3% |

Appendix C: Demographic Characteristics of Those Respondents Who Used Facebook

| Demographic | Level | Frequency | % | Valid % |
|--------------------------|------------------------------|-----------|------|---------|
| Gender | Male | 437 | 40.7 | 44 |
| | Female | 556 | 51.7 | 56 |
| | Missing | 82 | 7.6 | |
| Age | 18-29 | 187 | 17.4 | 18.8 |
| | 30-44 | 239 | 22.2 | 24.1 |
| | 45-60 | 319 | 29.7 | 32.1 |
| | >60 | 248 | 23.1 | 25 |
| | Missing | 82 | 7.6 | |
| Household Income | \$0-\$24,999 | 209 | 19.4 | 22.2 |
| | \$25,000-\$49,999 | 144 | 13.4 | 15.3 |
| | \$50,000-\$99,999 | 285 | 26.5 | 30.2 |
| | \$100,000-\$149,999 | 151 | 14 | 16 |
| | \$150,000+ | 154 | 14.3 | 16.3 |
| | Missing | 132 | 12.3 | |
| Education | Less than High School Degree | 9 | .8 | .9 |
| | High School Degree | 92 | 8.6 | 9.3 |
| | Some College | 278 | 25.9 | 28 |
| | Associate or Bachelor Degree | 351 | 32.7 | 35.3 |
| | Graduate Degree | 263 | 24.5 | 26.5 |
| | Missing | 82 | 7.6 | |
| Location - Census Region | New England | 59 | 5.5 | 6 |
| | Middle Atlantic | 120 | 11.2 | 12.2 |
| | East North Central | 153 | 14.2 | 15.5 |
| | West North Central | 73 | 6.8 | 7.4 |
| | South Atlantic | 169 | 15.7 | 17.1 |
| | East South Central | 52 | 4.8 | 5.3 |
| | West South Central | 82 | 7.6 | 8.3 |
| | Mountain | 83 | 7.7 | 8.4 |
| | Pacific | 195 | 18.1 | 19.8 |
| | Missing | 89 | 8.3 | |