Spring 5-10-2018

A Social Media Analysis of Users, Their General Happiness, and the Impact on Marketers

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A SOCIAL MEDIA ANALYSIS OF USERS, THEIR GENERAL HAPPINESS, AND

THE IMPACT ON MARKETERS

A Capstone Project Presented in Partial Fulfillment

of the Requirements for the Degree Bachelor of Science in Marketing and Bachelor of

Arts in Economics

with Honors College Graduate Distinction at

Western Kentucky Univeristy

By

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May 2018

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I dedicate this thesis to my parents, David and Carrie Hamberg, who ceaselessly inspire and encourage me to reach my full potential. I also dedicate this work to the friends and family who have motivated, listened, and assisted me throughout this process.

ACKNOWLEDGEMENTS

ABSTRACT

As the internet and social media become more prominent in today's society, it is important for marketers and others to understand who is using these platforms and how this usage affects overall happiness. Using data gathered from the General Social Survey (GSS) 2016 Cross-Section and a survey created and distributed to Western Kentucky University (WKU) Students, this research examines the effect of demographic variables on whether or not respondents utilize Facebook, Instagram, Twitter, and Snapchat. Then, the impact of having accounts on these social media platforms on users' overall general happiness is analyzed. Several other regressions were run and analyzed based on the WKU survey results to examine the impact of a variety of social media aspects on overall happiness.

The main findings revealed that females have a predominant and statistically significant presence over males on Facebook, Instagram, and Snapchat and those younger in age are more likely to be present on all platforms examined. Contrary to many diversifying opinions shown in previous research on the impact of social media on overall happiness, there was no statistical significance from these findings from either data source. However, it was found that motivation to use social media influenced happiness as well as frequency of usage. The impact of these results on marketers is then discussed.

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INTRODUCTION

Social Media is becoming more prevelant than ever year by year. As marketers seek to know and reach their consumers in the best ways possible, it is pertinent that they understand the realm of social media, which consumers utilize it, and how social media usage impacts the consumers. By gaining a better understanding of demographic characteristcs that may be statistically significant in regards to someone utilizing different social media platforms, including Twitter, Facebook, Snapchat, and Instagram, marketers can enhance their marketing plan to better reach their target market. There have been research studies that examined different demographic variables such as age, education level, race, and gender and the variance of social media usage based on these factors. This analysis will expand on those studies utilizing data from the General Social Survey (GSS) 2016 cross-section data as well as a data gathered from a survey distributed to collegiates at Western Kentucky University.

Additionally, there is often discussion occurring in society on whether social media has a positive or negative impact on the life of its users. Many studies have explored the effects of social media on physical and mental well-being through the impact of social media on aspects such as depression and self-esteem. Using the same data sets, this research question will also be examined. The impact on happiness of one's motivation for using social media as well as the frequency of use and the impact of these findings on marketers will be discussed. Through this economic, statistical analyzation, marketers can enhance their knowledge and improve their tactics.

LITERATURE REVIEW

In 2001, roughly 474 million people around the globe were connected to the internet (Shaw & Gant, 2002). As of 2017, that number has increased to 3.58 billion (Statista, 2018). This remarkable growth creates many questions that can better help marketers understand the value of social media and how to best utilize it. There has been a significant amount of research completed on the influence of demographical factors on one's social media usage and how that affects the user's lifestyle and emotions.

In 2012, Maeve Duggan and Joanna Brenner dug into the question of which demographics are utilizing which social media platforms. While Facebook was the most used social network, they discovered that women and adults ages 18-29 were the primary users of this site. At this point in time, women were more likely than men to be utilizing social media (Duggan & Brennan, 2013). Many businesses often focus on women and millennials when marketing through Facebook because they are typically seen as the predominant users (Froget, Baghestan, and Asfaranjan, 2013). In another Pew Research Center article published in 2015, it was discovered that the male and female percentages of social media usage had evened out and became similar (Perrin, 2015). Over the past three years, there has been even more growth. Now, 73% of women and 65% of men use social media. Women are more likely to use Facebook (Female – 74%, Male – 62%) , Instagram (F – 39%, M – 30%), Twitter (F – 24%, M – 23%), and Snapchat (F-31%, M-23%) than men (Social Media Fact Sheet, 2018).

Along with this, a growth from 7% social media usage in 2005 to 65% of adults now using social networking sites in 2015 was discovered. The majority of these users being young adults age 18-29 (Perrin, 2015). These young adults, also known as

millennials, are often referred to as digital natives. This generation grew up surrounded by quickly evolving technology and have been immersed in the growth of the industry for most of their lives. This leaves a foundation for digital literacy not found in other generations (Vodanovich, Shen, & Sundaram, 2015). According to Pew Research Center, Americans who fall between the ages of 18 to 24, the typical age of collegiate students, are more likely to have accounts on Snapchat, Instagram, and Twitter with 78% of people within this range utilizing Snapchat. Because of being part of the digital native generation, this age group of current college aged students are extremely likely to be found on one or multiple social media platforms (Smith & Anderson, 2018). While many think there has been a gravitation away from Facebook by young people, 81% of people age 18-29 use Facebook (Social Media Fact Sheet, 2018).

Regarding gender differences with social media usage, there were different reasons males and females typically utilized social networking sites. Communication with peer groups was discovered to be the most common motivation for joining social networking sites. Yet, differences could be seen when broken down by gender. Boys tended to use the internet for features and entertainment or to make new friends. On the contrary, girls focused on relational aspects and keeping in contact with current friends. Interestingly, females typically reported higher self-esteem as a result of social media. This can be inferred from the fact that those who reported higher self-esteem were using social networking sites to communicate with their peers (Barker, 2009).

In addition to gender differences, education also impacted social media usage. Respondents with some college education were more present on social media than those who had a high school diploma or less, and this remained fairly consistent from 2005-

2015 (Perrin, 2015). According the the Pew Research Center Social Media Fact Sheet, in 2018, college graduates are more likely to have accounts on Facebook, Instagram, and Twitter than other education levels. Those with some college education are more likely to have Snapchat (Social Media Fact Sheet, 2018).

Racial and ethnical differences among users are not as significant. However, large percentage increases have occurred over the past three years. In 2015, their usage ranged from 56% of African Americans to 65% of whites and 65% of Hispanics (Perrin, 2015). Now, in 2018, African Americans have seen a over a 10% increase going from 56% to 69%. Hispanics now lead with 72% having at least one social media site. Whites increased a mere 3% with their usage since 2015 (Social Media Fact Book, 2018).

Differences among income level and lifestyle were noticeable. Those in suburban or urban areas were more likely to be involved with social media than those in rural areas (Social Media Fact Book, 2018). Instagram specifically was more utilized by the urban population (Duggan & Brennan, 2013). This could be said to align with the effects of income on social media usage. In 2005, of people in households with a household income under $30,000, only 4% used social media compared to 12% from households with a household income over $75,000 (Perrin, 2015). Both of these have grown over the last thirteen years, but those with higher household incomes remain more likely to utilize social media with 77% of those with an income over $75,000 using at least one social media site (Social Media Fact Book, 2018).

These demographic factors are interesting to examine as is the effect of social media on peoples' happiness and overall well-being. In a clinical report created by the American Academy of Pediatrics, they emphasized the relation between users' online and

offline lives. While many may picture them as separate entities, they directly impact and affect each other. Using social media can have many benefits from connecting to those with shared interests, sharing ideas, communicating with those not nearby, and more. However, with these benefits come risks that include but are not limited to: harassment, cyberbullying, privacy issues, advertiser influence, and Facebook depression which occurs when spending a lot of time on Facebook leads to showing classic depression symptoms. Because of risks exemplified here and in other studies, people often see social media as having a negative impact on people's well-being (O'Keeffee & Clarke-Pearson, 2011).

Typically, in the past, people have assumed that internet use had a positive correlation with depression, loneliness, and stress (Shaw & Gant, 2002). Some studies such as the one conducted by Holly Shakya and Nicholas Christakis have results that align with this concept. In this research, they gathered data to see how overall well-being changed in correlation to Facebook use. They found a decrease in mental health could be predicted by Facebook use in one year. Specifically, liking and clicking links had an adverse effect on mental health. The liking and clicking of links leads to self-comparison that can then result in the negative mental health (Shakya & Christakis, 2017). Loneliness, depression, and daily stress have been discovered to be influenced by social media, especially in the millennial generation (Vodanovich, Shen, & Sundaram, 2015). Social media can also negatively affect those who tend to receive negative feedback online. This often stems from risky behavior or using the social networking sites to connect with previously unknown people (Valkenburg, Koutamanis, & Vossen, 2017).

Yet, other studies show the use of social media sites can actually have the opposite affect and decrease loneliness and depression and lead to an increased sense of social support and self-esteem (Shaw & Gant, 2002). Yes, those studies confirm that there may be some negative effects of the internet to some, such as less communication in families, but these negative effects have been exaggerated (Shaw & Gant, 2002). An example of these positive affects of social media is how Facebook was found to positively impact college students' life satisfaction, trust, and civic and political participation (Valenzuela, Park, & Kee, 2009). Another study discovered a positive relationship between well-being and internet usage based on also examining the closeness of friends with which one communicates online. When using social media to enhance already existing relationships, it can lead to increased social support and increase one's overall well-being (Valkenburg & Peter, 2007).

Social media can have a positive effect on one's social capital. Social capital is defined by dictionary.com as, "the interpersonal relationships, institutions, and other social assets of a society or group that can be used to gain advantage" (Dictionary.com. 2018). Ellison, Steinfield, and Lampe discovered a positive correlation between Facebook usage and the creation of social capital (2007). Facebook is often used to keep in touch with old friends and enhance relationships. This can lead to an enhanced sense of community. Instead of letting Facebook tear down their self-esteem, some respondents were seen to be using it to establish social capital and better their self-image through doing this (Ellison, Steinfield, & Lampe, 2007).

The sense of connection and the platform to freely express oneself can have mental and physical benefits (Shaw & Gant, 2002). People who utilize social more often

exhibit personality traits of extroversion, neuroticism, and openness to experience, which

allows people to develop and connect through social media (Correa, Hinsley, & Zuniga,

2009). Another interesting concept to consider when examining the relationship between

happiness and social media is the idea that instead of social media causing a negative

social identity, maybe people are turning to social media because they already previously

have a negative self-identity (Barker, 2009). This often occurs in older adolescents who

feel isolated, so they turn to social media to feel included and find companionship. They

seek the opportunity to identify with others through a different interface than their

everyday lives where those relationships may be lacking (Barker, 2009).

DATA SOURCES AND METHODOLOGY

Study 1:

The data utilized was obtained from the General Social Survey (GSS) 2016 cross-section. This data was collected in a survey format through the University of Chicago's National Opinion Research Center (NORC). The variables required to answer the research question included facebook, instagrm, snapchat, twitter, sex, age, rincome (respondent's income), educ (education), race, and happy. Dummy variables were generated for race (white, black), sex (male), Facebook (YesFacebook), Instagrm (YesInstagram), Snapchat (YesSnapchat), Twitter (YesTwitter), and happy (VeryHappy, PrettyHappy, and NotTooHappy) to avoid dummy variable bias and ensure proper interpretation of the empirical model outputs. Each social media account variable measures whether someone has an account on that specified platform or not. Social media variables that were completed as "Not Applicable" were dropped from the dataset. This drop included the loss of 1,483 responses. Most variables had a range from 1,366-1,372 responses remaining besides income which only had 855 responses which would later further restrict the dataset. The 12 "No Answer" responses in regards to social media platforms were also eliminated from the dataset during cleaning. While this limited the data, it allowed for more accurate interpretation of results. The "happy" variable is an ordered variable measuring whether respondents consider themselves very happy (1), pretty happy (2), or not too happy (3).

According to the summary statistics (See Appendix - Study 1 Summary Statistics), of the respondents, the ages ranged from 18-89 years old with the average respondent age being 44 years old. Highest year of school completed was an average of

14.32, meaning the average respondent had graduated from high school but not college. These responses ranged from 1-20 years of schooling. The average income fell at 10.42 which represents the $15,000 to $19,999 range. Regarding race and gender, there were more white than black respondents and more females than males.

For most social media platforms, the average person responded that they do not have a profile. This included Instagram, Snapchat, and Twitter. The only platform that respondents were more likely to have an account with was Facebook. Overall, respondents considering themselves pretty happy was the most common response when asked, "Taken all together, how would you say things are these days--would you say that you are very happy, pretty happy, or not too happy?"

Study 2:

In order to see how this data related more to a college specific market, 125 Western Kentucky University students were surveyed about their happiness, self-esteem, and social media habits (See Appendix – Study 2 Survey). This survey was created based on various new questions as well as the general happiness question from the GSS survey and some pre-existing scales that measured related aspects. The procedures were approved by the Institutional Review Board (IRB) (See Appendix – Study 2 IRB Approval Letter).

Constructs Measured:

A variety of scales related to happiness and social media usage were selected for use in data analysis. A loneliness scale was included that measures how often people feel

the way described in the statements (Russell, Peplau, & Cutrona, 1980). The respondents'

feelings were then examined in an optimism scale (Richins, 1997), as well as a sadness

scale (Izard, 1977). The materialism scale was included for future analysis of the impact

of social media usage on one's view of materialism (Dawson, 1990). A Facebook

intensity scale (Ellison, Steinfield, & Lampe, 2007) was adapted to accommodate for all

social media platforms in general and scale participants' agreement of statements

concerning how much they rely on social media. The social media disorder scale was

created by van den Eijnden, Lemmens, & Valkenburg as a way to accommodate for the

lack of an instrument to measure social media addiction and was utilized in my survey to

help measure social media disorder (van den Eijnden, Lemmens, & Valkenburg, 2016).

Lastly, the question exploring reasonings why people use social media was pulled from a

compiled and summarized list of statements based on previous research (Froget,

Bahestan, & Asfaranjan, 2013). Through utilizing these pre-existing survey scales, the

generated survey for this research gains reliability.

Sample:

Of the participants surveyed, there was a wide dispersion among grade levels.

There were 20 freshmen, 24 sophomores, 39 juniors, and 39 seniors who participated in

the survey. Grade was examined instead of level of education and income was omitted as

a survey question because many college students do not have a wide array of income that

would be relevant and significant. The majority of participants were 21 years old (41

participants) but ranged from 18-23 years of age (See Appendix – Study 2 Averages and

Counts 2). Race and gender were not as varied based on the sample. The lack of variation

in these demographic sectors will be addressed in the limitations. The survey was completed by predominantly white females, with 93 participants being females and only 31 being males. 117 participants declared themselves white, while only 2 were black or African American, 2 were Asian, and 1 listed themselves as other. This is partially reflective of the demographic profile of Western Kentucky University students in general where 58.9% of students are females and 77% of students are white as of Fall 2016 (Western Kentucky University, 2017). The lack of diversity may also be a result of the means used to distribute the surveys. When examining the survey data, race was dropped from the regression as a demographic variable. In addition to the lack of racial diversity of respondents, all black respondents were female. This leads to a collinearity issue.

Contrary to the General Social Survey data, most respondents declared that they do have an account on Facebook, Instagram, Snapchat, and Twitter. All participants of the survey have an Instagram account, only one did not have a Facebook, and only 4 did not have a Snapchat. From the data collected, Twitter was the platform people were least likely to have an account with, but 109 of the participants still did. A majority of these participants also claimed they do log into these accounts at least once a day, with Snapchat having the most daily logins and Twitter having the least. These responses align with the previous 2018 Pew Research Center data mentioned previously. While many responses to the question of "Which of these accounts do you use the most?" had to be dropped due to response errors, later explained in the limitations, leaving 79 valid responses, Snapchat is the most frequented platform, followed by Instagram, Twitter, and Facebook respectively.

On this survey, the same question from the General Social Survey was utilized to examine participants' general happiness. Results were similar to Study 1 with most participants declaring themselves pretty happy. In order to better grasp the effect of social media on participants' mood, happiness, and self-esteem, additional questions were added. These questions measured aspects such as their opinion on their relationships with others, the frequency of different feelings, their outlook on items they own or want to own, and questions stemming from the negative ideas frequently surrounding social media usage such as a sense of addiction, a means of escape, or a root of conflict.

Most responses seemed to reflect fairly positive results. On average, people sometimes to often felt in tune with those around them, rarely felt that no one really knows them well, felt they can find companionship when wanted, and tended to rarely feel like people are around them but not with them. These were measured on a 1 to 4 scale where 1 equals never, 2 equals rarely, 3 equals sometimes, and 4 equals often. The mean for feeling in tune with people around them was 3.552 while the mean for no one really knowing them well fell at 2.072. Respondents tended to feel that they can sometimes to often find companionship when they want it, which was shown by the mean of 3.565, and they rarely felt that people are around them but not with them indicated by the mean of 2.064.

Respondents typically ranked the frequency of feelings of optimism (mean=4.024), hope (mean=4.136), and encouraged (mean=4.064) higher than those of being downhearted (mean=2.323), sad (mean=2.304), or discouraged (mean=2.584). In regards to the materialistic questions, participants, on average, agreed they have all the things they need to enjoy life (mean=4.008) and had neutral or disagreeing tendencies on

questions about being happier or having a better life if they could afford to buy more things (means ranging from 2.734 to 3.355).

When asked questions that pertained to a basis of social media addiction such as "In the past year, have you regularly found that you can't think of anything else but the moment that you will be able to use social media again?" or questions based on negativity such as, "In the past year, have you regularly had arguments with others because of your social media use?", responses were more frequently "no". The two questions from this scale that saw more "yes" responses were "In the past year, have you often used social media to escape from negative feelings?" and "In the past year, have you tried to spend less time on social media, but failed?". While these still had a majority of "no" responses, these two questions were both closer to a 50-70 yes-no ratio as opposed to having 30 or less people respond "yes", as was seen with the other questions in this scale. This is not necessarily surprising as this scale measures disorders that should represent a small portion of the population.

The survey found that many agree that social media is a part of their everyday activity (mean=4.312) and has even become a part of their daily routine (mean=4.192). Whether they are using social media for entertainment, which is the most commonly selected use, keeping touch, information, sharing content, discussion, or meeting people (listed in order of most frequently selected responses), these users tend to feel a part of the social media community. This research examines further the variety of people in this social media community, the demographics that may affect their platform usage, and the impact of this usage on their overall general happiness (See Appendix – Study 2 Summary Statistics, Study 2 Averages and Counts 1, Study 2 Averages and Counts 3).

EMPIRICAL METHODS AND RESULTS

Study 1:

Two empirical models were established in order to answer the initial research questions for the General Social Survey 2016 cross-section dataset. First, in order to determine if different demographic variables impact whether or not respondents use various social media platforms, a multinomial logit equation was run. To do this, a type variable was generated, as the dependent variable, that was conditional on whether or not each person responded as to having that individual social media account (Facebook, Instagram, Snapchat, and Twitter). If respondents have Facebook, the response was replaced with type=1. For Instagram, type=2. Snapchat is labeled as 3 and Twitter 4. These are relative to someone having no social media accounts. The equation created was:

$$Pr(Type=j|x) = B_0 + B_1Male + B_2Age + B_3Rincome + B_4Educ + B_5White + B_6Black + E$$

Dummy variables were created for sex and race, establishing 1 if Male, 1 if White, and 2 if Black. Education and income were both measured through scales. Education uses a 0-20 scale, with 20 being higher education. Income uses the respondent's income and is based on a 1-12 scale fragmentation. These variables are all used to examine if there is a statistically significant positive or negative affect with any of the independent variables as they impact the respondent's usage of the various social media platforms.

The results from the multinomial logit equation examining the impact of different demographic variables on respondents' social media usage, as determined by the General Social Survey 2016 cross-section data are presented in Table 1.

Table 1: Study 1 – Demographic Output

VARIABLES	(2) Facebook	(3) Instagram	(4) Snapchat	(5) Twitter
Male	-0.683***	-1.166***	-1.090***	-0.305
	(0.201)	(0.273)	(0.264)	(0.240)
Age	-0.0177**	-0.0535***	-0.104***	-0.0701***
	(0.00719)	(0.00961)	(0.0133)	(0.00973)
Income	0.0327	0.000460	0.00551	-0.0710
	(0.0399)	(0.0515)	(0.0506)	(0.0440)
Education	-0.0493	0.00237	0.0132	0.137***
	(0.0364)	(0.0493)	(0.0481)	(0.0446)
White	0.0320	-0.490	-0.581	-0.179
	(0.427)	(0.482)	(0.449)	(0.473)
Black	-0.293	-0.399	-0.833	0.102
	(0.487)	(0.561)	(0.540)	(0.533)
Constant	2.207***	2.780***	4.739***	1.977**
	(0.787)	(0.962)	(0.930)	(0.895)
Observations	852	852	852	852

Robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Gender and age saw the most statistical significance among social media platforms. On Facebook, Instagram, and Snapchat, males are less likely to have an account than to not have any social media. This could imply that females are more likely to be found on these sites. Instagram is where they are least likely to have an account by -1.166 units. All of these results are statistically significant at the 1% significance level. This aligns with previous research done within the realm of social media users. This reveals that based on the GSS data, if one is seeking to target males with a social media

marketing campaign, the marketer may want to utilize Twitter to best reach the target market.

Since those older in age are stastically more likely to have no social media than have Facebook, Instagram, Snapchat, or Twitter it can be inferred that those younger in age are statistically more likely to have accounts on these platforms, but it is less statistically significant for Facebook. Facebook's significance only reaches the 5% level while the other platforms remain statistically significant at the 1% level. Snapchat sees the greatest decrease in likelihood of someone having an account as their age increases reaching a -0.104 unit decrease as age increases a year. This means the odds of someone having a Snapchat as they get older is 0.90123 times that of younger ($e^{-0.104}$). On the contrary, Facebook sees the least decrease in likelihood of someone having an account as their age increases with a -0.0177 unit decrease for every increase in year, indicating that the odds of someone having a Facebook, compared to no social media, as they get older is 0.98246 times that of younger respondents ($e^{-0.0177}$).

Twitter is the only platform that has demographics with statistical significance beyond gender and age. As the respondent's level of education increases, so does the chance of them having a Twitter account by 0.137 units at the 1% significance level as opposed to having no social media. Therefore, the odds of having a Twitter account for those with higher education is 1.14683 times ($e^{0.137}$) that of those who have no social media accounts. For the other platforms, although not statistically significant, as income increases, so does the participant's likelihood of having a Facebook, Instagram, or Snapchat account. An increase in level of education also shows an increase in Instagram

and Snapchat usage differing from Facebook that has decreased usage with an increase in education.

Race has no statistically significant impact on respondents' social media usage. Being black leads to people being less likely to have a Facebook, Instagram, or Snapchat, but the likelihood of having a Twitter account increases. Whites are less likely to have an Instagram, Snapchat, or Twitter but more likely to have a Facebook. These results are interesting to consider but not as significant as other demographic variables.

The second equation utilized was an Ordered Logit. This equation was used to determine participants' general happiness based on their usage of social media. The equation was as follows:

$$Pr(Happy = j|x) = B_0 + B_1 YesFacebook + B_2 YesInstagram + B_3 YesSnapchat +$$

$$B_4 YesTwitter + B_5 Male + B_6 Age + B_7 Rincome + B_8 Educ + B_9 White + B_{10} Black + E$$

The dependent variable "happy" was measured as an ordered response. By running an ordered logit, one is able to determine how one's response to utilizing the various social media platforms affects that order. The question on the survey asked, "Taken all together, how would you say things are these days- would you say that you are very happy, pretty happy, or not too happy?" Answers punched as 1 meant very happy, 2 being pretty happy, and 3 signifying not too happy. Each social media platform was examined while holding the demographic variables constant.

The results based on the General Social Survey 2016 cross-section are listed in Table 2.

Table 2: Study 1 – General Happiness Output

VARIABLES	(1) General Happiness
Has a Facebook Account	0.0744
	(0.168)
Has an Instagram Account	-0.0550
	(0.184)
Has a Snapchat Account	-0.215
	(0.199)
Has a Twitter Account	-0.135
	(0.193)
Male	0.0475
	(0.146)
Age	-0.00271
	(0.00542)
Income	-0.115***
	(0.0296)
Education	-0.0476*
	(0.0259)
White	-0.142
	(0.252)
Black	0.277
	(0.302)
Observations	851

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

According to the 2016 General Social Survey Cross-Section dataset, having an account on any of the examined social media platforms does not have a statistically significant effect on one's general happiness, holding constant the demographic variables previously examined. The survey question was scaled as 1 being very happy, 2 meaning pretty happy, and 3 signifying not too happy. While the output suggests that having a Facebook account makes people less happy and having an Instagram, Snapchat, or

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Twitter makes people generally happier, there was no statistical significance to these findings.

Study 2:

When examining the Western Kentucky University survey data, race was dropped from the regression as a demographic variable, as previously mentioned. Because of the lack of significance of the impact of the race variables on having an account on the social media platforms in the GSS data, dropping this variable in the survey analysis is not detrimental to the study.

For the WKU survey data, a multinomial logit could not effectively be run because each student had at least one social media site. The baseline category could not be established to compare. In order to accommodate this issue, multiple regression equations were run for each platform. The dependent variables examined to answer the research question of how demographic variables impact social media usage were based on the survey question "Which of the accounts do you log into at least once a day? (Check all that apply)". Linear probability model (LPM) regression equations were run in order to analyze the impact of the demographic variables on logging into each platform at least once a day. The LoginTwitter, LoginFacebook, LoginInstagram, and LoginSnapchat variables were used as the dependent variables instead of Twitter, Facebook, Instagram, and Snapchat because the latter lacked variety. Most college students have accounts on these platforms. However, the variation appears when asked about logging into those accounts so these variables were used to avoid collinearity issues.

Male is the independent variable being examined because of the previous statistical significance of gender on social media usage. Age and grade are being held constant but also examined for their impact and statistical significance. The linear probability model regression equations used are as follows:

$$\Pr(\text{LoginFacebook}=1|x) = B_0 + B_1\text{Male} + B_2\text{Age} + B_3\text{Grade} + E$$

$$\Pr(\text{LoginInstagram}=1|x) = B_0 + B_1\text{Male} + B_2\text{Age} + B_3\text{Grade} + E$$

$$\Pr(\text{LoginSnapchat}=1|x) = B_0 + B_1\text{Male} + B_2\text{Age} + B_3\text{Grade} + E$$

$$\Pr(\text{LoginTwitter}=1|x) = B_0 + B_1\text{Male} + B_2\text{Age} + B_3\text{Grade} + E$$

When examining the data gathered from the survey distributed to Western Kentucky University students, some results correlated with the General Social Survey data while other aspects did not. The effects of demographics on whether or not the respondent logs into the listed accounts at least once a day are examined in Table 3.

Table 3: Study 2 – Demographic Output

VARIABLES	(1) Login Facebook	(2) Login Instagram	(3) Login Snapchat	(4) Login Twitter
Male	-0.357***	-0.00200	-0.0393	-0.0319
	(0.104)	(0.0526)	(0.0614)	(0.112)
Age	-0.0586	0.0219	0.0193	-0.107*
	(0.0605)	(0.0273)	(0.0292)	(0.0624)
Grade	0.151**	-0.0120	-0.0365	0.0709
	(0.0641)	(0.0374)	(0.0365)	(0.0666)
Constant	1.615	0.515	0.663	2.671**
	(1.077)	(0.486)	(0.518)	(1.121)
Observations	122	122	122	122
R-squared	0.134	0.004	0.019	0.031

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Based on the data in this output, it is seen that males are less likely than females to login to Facebook, and this is the only platform that has statistical significance in regards to gender. Being male makes the respondent 0.357 units less likely to login to Facebook daily, at the 1% statistical significance level. While the survey population was highly female, the lack of male social media participation is still statistically apparent.

For age, there is some fluctuation. In the General Social Survey dataset, we see that all platforms are more likely to be used as age decreases, with each having statistical significance. Here, we see that people are more likely to login at least once a day to Instagram and Snapchat the older they are and Facebook and Twitter the younger they are, with Twitter having statistical significance at the 10% level. Participants are 0.107 units less likely to login to Twitter at least once a day the older the they are. While this varies from the General Social Survey output, the age range here is much more refined, ranging from 18-23 as opposed to 18-89. This means those who are deemed older are only one or two years different in age as opposed to the wider range of age differences between young and old in the General Social Survey data.

As one progresses from a freshman to a senior and grade level increases, so does their likelihood of logging into Facebook and Twitter at least once a day. By completing another year of schooling and advancing into the next grade, participants become 0.151 units more likely to log into Facebook at least once a day. This is significant at the 5% level. Underclassmen tend to be more likely to be present on Instagram and Snapchat, even though the results were not statistically significant.

To answer the second research question about the impact of social media usage on general happiness, a similar ordered logit equation was utilized as in Study 1. However, the variables used measured if the participants log into the sites at least once a day as opposed to those variables measuring solely whether or not the respondent has an account. This was because of the lack of variation in the Facebook, Instagram, Snapchat, and Twitter variables from the WKU student survey. The equation used is as follows:

$$Pr(GenHappy=j|x) = B_0 + B_1 LoginFacebook + B_2 LoginInstagram + B_3 LoginSnapchat + B_4 LoginTwitter + B_5 Male + B_6 Age + B_7 Grade + E$$

The results are listed in Table 4.

Table 4: Study 2 – General Happiness Output

VARIABLES	(1) General Happiness
Login Facebook	-0.0829
	(0.142)
Login Instagram	-0.151
	(0.317)
Login Snapchat	-0.345
	(0.349)
Login Twitter	0.0106
	(0.117)
Male	-0.0473
	(0.152)
Age	0.0234
	(0.0718)
Grade	-0.0286
	(0.0810)
Constant	2.079*
	(1.224)
Observations	122
R-squared	0.034

Robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Once again, there is no statistical significance found between the relation of social media usage and general happiness, holding constant some demographic variables. According to this data, it seems that logging into Facebook, Instagram, and Snapchat at least once a day generally correlates with an increased self-proclaimed level of happiness while Twitter works in reverse. The lack of statistical significance from either dataset implies that the preconceived notions of others about social media either having a highly negative impact or highly positive impact may not be as influential as thought.

In addition to these two equations being created to analyze the WKU student survey data and to answer the initial research questions, more empirical models were created. These were generated in order to see if any statistical significance could be found from other information gathered from the survey of Western Kentucky University students that would be relevant to determining the effect of social media usage on the overall happiness of people.

The first additional regression equation ran is an Ordered Logit that examines the effect of the responses to, "Social media is part of my everyday activity" on the respondents' overall general happiness. General happiness is scaled the same way as previous and is the dependent variable of this ordered logit equation. Everyday is the independent variable of primary focus with other variables being held constant. Everyday and the other variables included measure the frequency and intensity of respondents' social media usage. The responses were measured on a 1= Strongly Disagree to 5= Strongly Agree scale (See Appendix – Study 2 Survey – Question #8). The equation created is:

$$\Pr(\text{GenHappy}=j|x) = B_0 + B_1\text{Everyday} + B_2\text{Tell} + B_3\text{Routine} + B_4\text{OutOfTouch} + B_5\text{Community} + B_6\text{ShutDown} + B_7\text{Male} + B_8\text{Age} + B_9\text{Grade} + E$$

In Table 5, the impact of a variety of questions regarding social media intensity were examined based on how they influence a respondent's general happiness.

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Table 5: <u>Study 2 – Frequency & Intensity Output</u>

VARIABLES	(1) General Happiness
Everyday	-0.549*
	(0.331)
Routine	1.081***
	(0.357)
Tell	-0.193
	(0.328)
Out of Touch	0.467
	(0.292)
Community	-0.189
	(0.276)
Shut Down	-0.384
	(0.273)
Age	0.0424
	(0.324)
Male	0.175
	(0.552)
Grade	-0.118
	(0.355)
Observations	122

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Contrary to some previous studies, it is shown here that as respondents selected

higher responses (1=strongly disagree to 5=strongly agree) when asked if social media is

part of their everyday activity, their level of happiness increased (1=very happy, 2=pretty

happy, 3=not so happy) at the 10% statistically significant level. However, when looking

at the routine variable that measures their response to "social media has become part of

my daily routine", there was an adverse effect. As responses increased and shifted

towards strongly agreeing, people became more likely to consider themselves not so

happy with a 1.081 unit increase in responses at the 1% significance level. The odds of

general happiness for those who consider social media part of their daily routine is 2.948

times that of those who do not. Here, the higher the number the more negative the impact on happiness due to the scaling of 3 equaling "not so happy". This illustrates the fine line between using social media daily and using it so much it can be considered routine. As one utilizes social media enough to consider it routine, there is a decrease in overall general happiness.

Another additional facet examined was whether the reason why people use social media impacts their general happiness. An ordered logit was run with general happiness once again as the dependent variable. Each reason listed as an option on the survey for utilizing social media was examined with demographic variables being held constant in the following equation:

$$\Pr(\text{GenHappy}=j|x) = B_0 + B_1\text{MeetingPeople} + B_2\text{Entertainment} + B_3\text{KeepingTouch} + B_4\text{ShareContent} + B_5\text{Discussion} + B_6\text{Information} + B_7\text{Male} + B_8\text{Age} + B_9\text{Grade} + E$$

Table 6 explores some motives and how they affect the same general happiness variable.

Table 6: Study 2 – Motives Output

VARIABLES	(1) GenHappy
MeetingPeople	-0.117
	(0.514)
Entertainment	-1.457
	(1.908)
KeepingTouch	-0.776
	(1.013)
ShareContent	-0.626
	(0.480)
Discussion	0.365
	(0.471)
Information	0.905*
	(0.476)
Age	0.150
	(0.292)
Male	-0.295
	(0.682)
Grade	-0.0902
	(0.347)
Observations	122

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

While there was not much statistical significance among the independent variables, people using social media as a source for information showed statistical significance at the 10% level. When people marked that they use social media for information, it increased their likelihood of considering themselves not very happy by 0.905 units. Signifying an increase in the odds by 2.472 times, which again signifies a negative impact on happiness. Although not statistically significant, respondents who use social media for discussion also tend to consider themselves not very happy. However, when respondents claimed to use social media for meeting people, entertainment, keeping

touch, or sharing content it had a positive, but not statistically significant, impact on their overall general happiness.

These findings make sense as using social media to enhance one's social capital can lead to increased happiness (Ellison, Steinfeld, & Lampe, 2007). Doing things such as meeting people, keeping touch, and sharing content help build that social capital. Therefore, it can logically be inferred, and is shown through this regression analyzation, that using social media for these purposes can increase general happiness, even though not statistically significant.

Taking all of this data into consideration, why does it matter? As a marketer, it is essential to the marketing plan to know and understand one's target market. This does not mean solely knowing who you want to reach but also how you will reach that market. Many marketers are shifting to social media usage due to the growing presence of the internet and social media in today's society as explained in the literature review. Now, with this data, marketers can gain a better understanding of which platforms may be best for different demographics.

Creating target market profiles can help market one's product. For example, if one is focusing on a young male target market, the marketer may want to place their content on Twitter, because according to the General Social Survey 2016 cross-section data analyzation, Twitter is the only platform that does not have a statistically significant female shifted presence. Yet, older respondents are still less likely to have a Twitter account. If someone is looking to target a female within the collegiate demographic, primarily an upperclassman, they may want to focus their marketing efforts on Facebook. There was statistical significance in an increase in the likelihood of logging into Facebook at least once a day from both those who were not male and those who were in a higher grade level. Being able to analyze statistical evidence and better pinpoint means to reach the desired target market has become essential as more channels of marketing have been established and more data has become readily available.

Additionally, the ethical implications of social media marketing could be discussed if social media was having a strong, negative effect on people's happiness.

However, the data examined did not show any statistical significance of this occurring. Therefore, based on this data, marketers do not need to worry about limiting their usage of social media marketing to accommodate for the ethics of utilizing something that made people statistically unhappy. Being able to market without worry of the general affect on happiness by using social media platforms, is a benefit to marketers.

Another impact on marketers is the understanding of why respondents use social media and how that impacts their happiness. From the Western Kentucky University survey data, it was shown that the most common usage was for entertainment followed by keeping touch, information, sharing content, discussion, and then meeting people. However, using social media for information, on average, has a statistically significant, negative impact on respondents' general happiness. Therefore, marketers should focus on less informational content and instead concentrate on creating content intended to entertain. When factoring entertainment or even keeping touch and making sharable content, the marketing campaigns could have a more positive impact on consumers. This leaves a better lasting impression on the consumer as well as making the marketing campaign more successful.

LIMITATIONS

This project was faced with a variety of limitations that cannot go unaddressed. First, in regards to the General Social Survey dataset, 1,483 responses had to be dropped from the dataset due to "Not Applicable" answers in response to whether or not the respondent had an account on the examined social media platforms. 12 "No Answer" responses in regards to social media platforms were also eliminated from the dataset during cleaning. While this limited the data, it did allow for more accurate interpretation of results.

Another limitation is rooted in how people respond to surveys. Often, people are not going to want to admit to themselves that they are not very happy, do not want to see it in writing, or do not want others to know. Even though the surveys are distributed and collected anonymously, there can be a sense of wanting to impress or not being completely honest when completing the survey. This leads to social desirability bias as well as interviewer bias. This is not only potentially true for the General Social Survey but also the survey created and distributed to Western Kentucky University Students. The responses to questions regarding general happiness, self-esteem, and mood had higher tendencies than hypothesized.

An additional survey error occurred on the one created and distributed to Western Kentucky University students. Question number 7 stated, "Which of these accounts do you use the most?" It was mistakenly assumed that students would know to select the one account which they used the most. However, around 45 students selected more than one account. This created an issue with coding, analyzing, and interpreting the results of this

question. Also, 125 surveys could be considered a small sample size when analyzing data through Stata and leads to some limitations with regression equations and finding statistical significance.

Lastly, the final major limitation came from the lack of diversity among the sample population for the Western Kentucky University student survey. A multitude of the 125 surveys were distributed during an all-female meeting for data collection. This led to a skewed sample of predominantly females. Because of the lack of variation in gender, it is more difficult to tell if there is a statistically significant impact involved with this demographic feature and its impact on social media usage. Also, the majority of the sample responded that their race is white. On a campus where, as of Fall 2016, 77.2% of undergraduate students are white, this is likely to happen (Western Kentucky University, 2017). The race variable was omitted from data analyzation to avoid collinearity issues due to the lack of variation, but those relationships could then not be analyzed.

CONCLUSION

Overall, the research results correlated with many of the findings from previous research. Based on the General Social Survey 2016 cross-section data, males are less likely to have an account on Facebook, Instagram, and Twitter, as opposed to having no social media, and this statistical significance occurs at the 1% level. Additionally, at the 1% level of statistical significance, it was shown that as one gets older, he/she is more likely to not have any social media accounts at all as opposed to having one account on either Facebook, Instagram, Snapchat, or Twitter. While there was no significance found among the race variable on any platform, when it comes Twitter, those with more education are more likely to have an account.

When surveying Western Kentucky University students, it was discovered that majority of respondents all have a Facebook, Instagram, Snapchat, and Twitter account. This could be due to the vast majority of college students being members of the digital era where social media is a norm. In order to avoid collinearity issues, the regression equations were ran with the variables that considered whether or not the respondents login to these sites at least once a day. This provided for more variability, and it was discovered, with statistical significance, that males are less likely to login to Facebook at least once a day. Twitter is frequented by those younger in age, and the likelihood of logging into Facebook at least once a day increases as grade level increases.

There have been multiple previous studies that examine the impact of social media on one's overall happiness and mental health that show either a positive or negative correlation between the two. Contrary to this, the General Social Survey and WKU Survey data showed that having accounts on these platforms has no statistical significance in regards to

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general happiness. Upon further evaluations based on other survey questions, it was found that using social media everyday can lead to increased happiness. However, once that everyday usage transitions into feeling like social media is part of one's daily routine, there was statistical significance of increased responses of considering oneself "not too happy". Additionally, it was found that those who use social media for information tend to consider themselves less happy than those who utilize it for other purposes, such as entertainment, sharing content, and keeping touch.

As marketers, understanding the demographics that drive each platform allows companies to better reach their target market, and understanding why people use social media allows these companies to create better content. Realizing the statistically insignificant impact of having these accounts on happiness levels shows that marketers do not need to currently worry about the ethics of severe negative or positive impact on general mood.

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Study 1 Variables

Variable Name	Variable Meaning	Coding
Male	Gender	1=male, 0=female
Age	Age	Continous variable
Rincome	Respondent's Income	See Image #1 below
Educ	Highest year of school completed	See Image #2 below
White	Respondent is white	1=white, 0=not white
Black	Respondent is black	1=black, 0=not black
YesFacebook	Respondent has a Facebook account	1=has account, 0=does not have account
YesInstagram	Resondent has an Instagram account	1=has account, 0=does not have account
YesSnapchat	Respondent has a Snapchat account	1=has account, 0=does not have account
YesTwitter	Respondent has a Twitter account	1=has account, 0=does not have account
Happy	Respondent's general happiness	1=Very happy, 2=Pretty happy, 3=Not too happy, 4=Don't know

Image #1: Rincome

Under $1,000	1
$ 1,000 to 2,999	2
$ 3,000 to 3,999	3
$ 4,000 to 4,999	4
$ 5,000 to 5,999	5
$ 6,000 to 6,999	6
$ 7,000 to 7,999	7
$ 8,000 to 9,999	8
$10,000 to 14,999	9
$15,000 to 19,999	10
$20,000 to 24,999	11
$25,000 or over	12

Image #2: Educ

No formal schooling	0
1st grade	1
2nd grade	2
3rd grade	3
4th grade	4
5th grade	5
6th grade	6
7th grade	7
8th grade	8
9th grade	9
10th grade	10
11th grade	11
12th grade [See REMARKS]	12
1 year of college	13
2 years	14
3 years	15
4 years	16
5 years	17
6 years	18
7 years	19
8 years	20

Study 2 Variables

Variable Name	Variable Meaning	Coding
Male	Gender	1=male, 0=female
Age	Age	Continuous variable
Grade	Grade Level	1=freshman, 2=sophomore, 3=junior, 4=senior, 5=graduate student
LoginFacebook	Respondent logs into Facebook at least once a day	1=logs in at least once a day, 0=does not log in at least once a day
LoginInstagram	Respondent logs into Instagram at least once a day	1=logs in at least once a day, 0=does not log in at least once a day
LoginSnapchat	Respondent logs into Snapchat at least once a day	1=logs in at least once a day, 0=does not log in at least once a day
LoginTwitter	Respondent logs into Twitter at least once a day	1=logs in at least once a day, 0=does not log in at least once a day

Everyday	Social Media is a part of respondent's everyday activity	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree
Tell	Respondent is proud to tell people he/she is on social media	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree
Routine	Social Media has become part of resondent's daily routine	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree
OutofTouch	Respondent feels out of touch when he/she hasn't logged into Social Media in awhile	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree
Community	Respondent feels he/she is part of the social media community	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree
Shutdown	Respondent would be sorry if social media shut down	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree
MeetingPeople	Respondent uses social media for meeting people	1=uses social media for meeting people, 0=does not
Entertainment	Respondent uses social media for entertainment	1=uses social media for entertainment, 0=does not
KeepingTouch	Respondent uses social media for keeping touch	1=uses social media for keeping touch, 0=does not
ShareContent	Respondent uses social media to share content	1=uses social media to share content, 0=does not
Discussion	Respondent uses social media for discussion/interaction	1=uses social media for discussion/interaction, 0=does not
Information	Respondent uses social media for information	1=uses social media for information, 0=does not
GenHappy	Respondent's general happiness	1=Very happy, 2=Pretty happy, 3=Not too happy, 4=Don't know

Study 1 Summary Statistics

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
Age	1,366	44.19	16.02	18	89
Education	1,370	14.32	2.778	1	20
Income	855	10.42	2.885	1	12
White	1,372	0.759	0.428	0	1
Black	1,372	0.150	0.357	0	1
Male	1,372	0.440	0.497	0	1
Has a Facebook Account	1,372	0.745	0.436	0	1
Has an Instagram Account	1,372	0.308	0.462	0	1
Has a Snapchat Account	1,372	0.227	0.419	0	1
Has a Twitter Account	1,372	0.186	0.389	0	1
Respondent Considers Themself Very Happy	1,372	0.270	0.444	0	1
Respondent Considers Themself Pretty Happy	1,372	0.573	0.495	0	1
Respondent Considers Themself Not Too Happy	1,372	0.156	0.363	0	1

Study 2 Summary Statistics:

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
SurveyNumber	125	63	36.23	1	125
GenHappy	125	1.928	0.570	1	4
Tune	125	3.552	0.531	2	4
Knows	125	2.072	0.764	1	4
Companionship	124	3.565	0.588	1	4
Around	125	2.064	0.821	1	4
Downhearted	124	2.323	0.959	1	5
Sad	125	2.304	0.863	1	4
Discouraged	125	2.584	0.891	1	5
Optimistic	125	4.024	0.756	1	5
Encouraged	125	4.064	0.704	2	5
Hopeful	125	4.136	0.786	2	5
EnjoyLife	124	4.008	0.781	1	5
Owned	124	2.734	1.052	1	5
OwnedNicer	124	3.202	0.919	1	5
Afford	124	3.355	1.113	1	5
CantAfford	123	2.894	1.158	1	5
Twitter	124	0.879	0.327	0	1
Facebook	124	0.992	0.0898	0	1

Instagram	124	1	0	1	1
Snapchat	124	0.968	0.177	0	1
Other1	124	0.177	0.937	0	10
LoginTwitter	124	0.685	0.466	0	1
LoginFacebook	124	0.750	0.435	0	1
LoginInstagram	124	0.927	0.260	0	1
LoginSnapchat	124	0.944	0.232	0	1
LoginOther	124	0.0242	0.154	0	1
UseMost	79	2.873	1.148	1	4
Everyday	125	4.312	0.817	1	5
Tell	125	3.680	0.903	2	5
Routine	125	4.192	0.780	1	5
OutOfTouch	125	3.072	1.158	1	5
Community	125	3.640	0.884	1	5
ShutDown	125	3.336	1.055	1	5
UseAgain	125	1.864	0.344	1	2
Dissatisfied	125	1.904	0.296	1	2
FeltBad	125	1.848	0.360	1	2
LessTime	125	1.568	0.497	1	2
Neglected	125	1.768	0.424	1	2
Arguments	125	1.920	0.272	1	2
Lied	125	1.904	0.296	1	2
Escape	125	1.560	0.498	1	2
Conflict	125	1.968	0.177	1	2
MeetingPeople	124	0.331	0.472	0	1
Entertainment	124	0.960	0.198	0	1
KeepingTouch	124	0.903	0.297	0	1
ShareContent	124	0.653	0.478	0	1
Discussion	124	0.427	0.497	0	1
Information	124	0.750	0.435	0	1
Other4	124	0.0242	0.154	0	1
Age	124	20.35	1.197	18	23
Gender	124	1.750	0.435	1	2
Race	122	1.107	0.600	1	6
Grade	122	2.795	1.067	1	4

Study 2 Averages and Counts 1:

		GenHappy	Tune	Knows	Companionship	Around
Average		1.928	3.552	2.072	3.564516129	2.064
Counts	If Code = 1	23	0	29	1	33
	If Code = 2	90	2	61	3	56
	If Code = 3	10	52	32	45	31
	If Code = 4	2	71	3	75	5
	If Code = 5					

Downhearted	Sad	Discouraged	Optimistic	Encouraged	Hopeful
2.322580645	2.304	2.584	4.024	4.064	4.136
28	23	13	1	0	0
42	51	46	3	2	5
41	41	47	19	21	16
12	10	18	71	69	61
1	0	1	31	33	43

EnjoyLife	Owned	OwnedNicer	Afford	CantAfford	UseMost
4.008064516	2.733870968	3.201612903	3.35483871	2.894308943	2.873417722
1	14	5	9	15	17
4	40	19	18	32	6
19	42	54	34	39	26
69	21	38	46	25	30
31	7	8	17	12	0

Everyday	Tell	Routine	OutOfTouch	Community	ShutDown
4.312	3.68	4.192	3.072	3.64	3.336
2	0	1	7	2	4
2	11	3	41	9	25
10	44	13	30	40	39
52	44	62	30	55	39
59	26	46	17	19	18

UseAgain	Dissatisfied	FeltBad	LessTime	Neglected	Arguments
1.864	1.904	1.848	1.568	1.768	1.92

				Race	Grade
17	12	19	54	29	10
108	113	106	71	96	115
Lied	**Escape**	**Conflict**	**Gender**	**Race**	**Grade**
1.904	1.56	1.968	1.75	1.106557377	2.795081967
12	55	4	31	117	20
113	70	121	93	2	24
				0	39
				2	39
				0	
				1	

Study 2 Averages & Counts 2:

	Age
Average	20.34677419
18	7
19	28
20	27
21	41
22	19
23	2

Study 2 Averages and Counts 3:

		Twitter	Facebook	Instagram
Average		0.879032258	0.991935484	1
Counts	If Code = 1	109	123	124
	If Code = 0	15	1	0
		Snapchat	Other1	OtherOpen1
		0.967741935	0.177419355	0
		120	12	
		4	111	
		LoginTwitter	LoginFacebook	LoginInstagram
		0.685483871	0.75	0.927419355
		85	93	115
		39	31	9
		LoginSnapchat	LoginOther	OtherOpen2
		0.943548387	0.024193548	0
		117	3	
		7	121	
		MeetingPeople	Entertainment	KeepingTouch
		0.330645161	0.959677419	0.903225806
		41	119	112
		83	5	12
		ShareContent	Discussion	Information
		0.653225806	0.427419355	0.75
		81	53	93
		43	71	31
		Other4	OtherOpen4	
		0.024193548	0	
		3		
		121		

Study 2 Survey:

1. Taken all together, how would you say things are these days--would you say that you are very happy, pretty happy, or not too happy? (Check one)

    _____ Very happy

    _____ Pretty happy

    _____ Not too happy

    _____ Don't know

2. Indicate how often you feel the way described in each of the following statements:

	Never	Rarely	Sometimes	Often
I feel in tune with the people around me	1	2	3	4
No one really knows me well	1	2	3	4
I can find companionship when I want it	1	2	3	4
People are around me, but not with me	1	2	3	4

3. How often do you feel each of these feelings?

	Almost Never		Neutral		Very Often
Downhearted	1	2	3	4	5
Sad	1	2	3	4	5
Discouraged	1	2	3	4	5
Optimistic	1	2	3	4	5
Encouraged	1	2	3	4	5
Hopeful	1	2	3	4	5

4. Please rate the following on a scale of 1 to 5. 1 being Strongly Disagree and 5 being Strongly Agree:

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
I have all the things I really need to enjoy life	1	2	3	4	5
My life would be better if I owned certain things I don't have	1	2	3	4	5
I wouldn't be any happier if I owned nicer things	1	2	3	4	5
I'd be happier if I could afford to buy more things	1	2	3	4	5
It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like	1	2	3	4	5

5. Which social media sites do you have an account with? (Check all that apply)

___ Twitter ___ Facebook ___Instagram ___ Snapchat ___Other, Please Specify:___

6. Which of the accounts do you log into at least once a day? (Check all that apply)

___ Twitter ___ Facebook ___Instagram ___ Snapchat ___Other, Please Specify:___

7. Which of these accounts do you use the most?

___ Twitter   ___ Facebook   ___ Instagram   ___ Snapchat   ___ Other, Please Specify:____

8. For your social media usage in general. Please rate the following on a scale of 1 to 5. 1 being Strongly Disagree and 5 being Strongly Agree:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Social Media is part of my everyday activity	1	2	3	4	5
I am proud to tell people I am on social media	1	2	3	4	5
Social Media has become part of my daily routine	1	2	3	4	5
I feel out of touch when I haven't logged into Social Media in awhile	1	2	3	4	5
I feel I am part of the social media community	1	2	3	4	5
I would be sorry if social media shut down	1	2	3	4	5

9. In the past year, have you

Regularly found that you can't think of anything else but the moment that you will be able to use social media again?	Yes	No
Regularly felt dissatisfied because you wanted to spend more time on social media?	Yes	No
Often felt bad when you could not use social media?	Yes	No
Tried to spend less time on social media, but failed?	Yes	No
Regularly neglected other activities (e.g. hobbies, sport) because you wanted to use social media?	Yes	No
Regularly had arguments with others because of your social media use?	Yes	No
Regularly lied to your parents or friends about the amount of time you spend on social media?	Yes	No
Often used social media to escape from negative feelings?	Yes	No
Had serious conflict with your parents, brother(s), or sister(s) because of your social media use?	Yes	No

10.   I use social media for: (check all that apply)

___Meeting People   ___Entertainment   ___Keeping Touch   ___Share Content

___Discussion/Interaction   ___ Information   ___Other, Please Specify___

11. Age: _____

12. Gender: ____Male   ____Female

13. Race:

        ____White   ____ Black or African American   ____American Indian or Alaska Native   ____ Asian

        ___ Native Hawaiian or Pacific Islander   ___Other

14. Grade level:

___Freshman   ____Sophomore   ____Junior   _____Senior ____Graduate Student

Study 2 IRB Approval Letter:

WKU

INSTITUTIONAL REVIEW BOARD
OFFICE OF RESEARCH INTEGRITY

DATE:	March 30, 2018
TO:	Megan Hamberg
FROM:	Western Kentucky University (WKU) IRB
PROJECT TITLE:	[1219494-1] A Social Media Analysis of Users, Their General Happiness, and the Impact on Marketers
REFERENCE #:	IRB 18-337
SUBMISSION TYPE:	New Project
ACTION:	APPROVED
APPROVAL DATE:	March 30, 2018
REVIEW TYPE:	Exempt from Full Board Review

Thank you for your submission of New Project materials for this project. The Western Kentucky University (WKU) IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Exempt from Full Board Review based on the applicable federal regulation.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding followed by an *implied* consent form. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. Please use the appropriate reporting forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

This project has been determined to be a Minimal Risk project.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Paul Mooney at (270) 745-2129 or irb@wku.edu. Please include your project title and reference number in all correspondence with this committee.

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This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Western Kentucky University (WKU) IRB's records.