# Facebook Identity: Virtual Interaction and Life Satisfaction

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# ABSTRACT

*Objectives.* Social Networking Sites (SNSs) have exploded in popularity around the world and are composed of hundreds of millions of users. SNSs give the ability to communicate, share photos, send files, and update personal information instantaneously and continuously. Research is now being done on these sites to determine their usefulness and study whether or not its existence can enhance learning and the lives of people. The purpose of this study is to examine whether or not Facebook use has an effect on life satisfaction through Facebook identity salience and Facebook role enactment. *Methods.* Using data acquired at the University of Texas at Austin, this research uses a path model to identity relationships between Facebook use and life satisfaction. *Results.* My research finds that identity theory can be applied to learning the effect Facebook use has on life satisfaction. Overall we that greater Facebook identity salience and more friends are associated with greater life satisfaction. We also find that for females, the more time spent on Facebook decreases reported life satisfaction. *Conclusion.* My research has proved that identity theory can be used to examine roles that are not considered to be highly important. The model designed can be used as a blueprint to examine other roles relating to social media. My hope is that future research looks at the importance of the social media roles for younger generations and how they compare to older generations with more salient roles.

# ACKNOWLEDGEMENTS

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Finally I would like to thank my father. In the middle of my graduate studies we were faced with a decision that would help to prolong his life. His fight through kidney failure (and our eventual successful kidney donation surgery) helped give me the courage to continue my research.

# TABLE OF CONTENTS

CHAPTER PAGE

Abstract ........ ii.

Acknowledgements ........ iii.

Chapter One: Introduction ........ 1

Current Research ........ 1

Theoretical Background ........ 2

Chapter Two: Literature Review ........ 3

Life Satisfaction, Well-being and Online Interaction ........ 3

Background and Recent Research on Facebook ........ 5

Identity Theory ........ 7

Model Introduction ........ 10

Variable Matching With Model ........ 11

Other Determinants of Well-being ........ 13

Research Problem ........ 13

Chapter Three: Methods ........ 15

Data ........ 15

Measures ........ 16

Data Analysis ........ 18

Chapter Four: Results ........ 19

Figure 2 Coefficients ........ 19

Figure 2 Reconstructed Correlations ........ 20

Figure 3 Model Introduction ........ 21

Figure 3 Reconstructed Correlations ........ 23

Direct and Indirect Effects on Life Satisfaction ........ 23

  Path Model by Gender and Discussion ....................25
Chapter Five: Discussion and Conclusions ....................29
  Model Results ....................29
  Findings ....................29
  Gender Differences ....................30
  Role Importance Differences ....................30
  Synchronous v. Asynchronous Interaction ....................31
  Limitations and Future Research ....................32
  Conclusions ....................34
References ....................35
Appendix A: Figures ....................39
Appendix B: Tables ....................42
Appendix C: Feelings Towards Facebook Scale ....................44

## List of Figures

Figure 1: Theoretical Model: Facebook Identity and Life Satisfaction ........................................ 10

Figure 2: Path Model 1 ........................................................................................................ 19

Figure 3: Path Model 2 ........................................................................................................ 21

Figure 4: Path Model for Females Only ............................................................................. 26

Figure 5: Path Model for Males Only ................................................................................. 26

## List of Tables

Table 1: Path Model 1 Reconstructed Correlations ........20

Table 2: Reconstructed Correlations of Path Model 2 ........23

Table 3: Direct and Indirect Effects on Life Satisfaction ........23

Table 4: Means and Standard Deviations of Variables by Gender ........25

Table 5: Linear Regression of Life Satisfaction with Facebook identity salience, Facebook role enactment and Number of Friends ........28

# CHAPTER ONE

# INTRODUCTION

Use of SNSs has skyrocketed since the early 2000's, starting in 2003 with MySpace and continuing the trend since Facebook's introduction in 2004. The most commonly used sites as of April 2014 are Facebook, Twitter, LinkedIn, Google+, Pinterest, and Instagram. SNSs have become commonplace in American homes and especially among college students. Multiple studies show that at least 90% of students had a social networking page or blog. There are over 1.23 billion monthly active users in the world and studies show that every 8 minutes online is spent on Facebook. (http://newsroom.fb.com/company-info) We can assume that our activity online influences our offline lives. It is important to further this research in the social sciences to better understand the consequences of online usage, and the impact our online social networks have on our quality of life.

Current research (Ellison, Steinfield, and Lampe 2007; Valenzuela, Park, and Kee 2009; Stutzman and Yoder 2011) on SNSs looks at the intensity of usage and relates this to factors such as social capital, social trust, life satisfaction, SES, and reduction of offline interaction. Journalists have also investigated SNS usage and bullying, privacy issues, and dangerous exposure (Valenzuela et al. 2009). With data being more available and newer models of data collection being developed (Ellison et al. 2007), analyzing SNS usage and behaviors is becoming more feasible for researchers. The research already conducted on these subjects shows significant relationships of SNS use with offline friendship networks (Bernie 2008), civic and political engagement (Valenzuela et al. 2009; Ellison et al. 2007), and trust (Valenzuela et al. 2009).

Research indicates that being integrated into a network of friends and the social interaction that occurs from this integration is essential to life satisfaction. I will investigate the relationship between SNS use and life satisfaction. However, I will take a different approach to conceptualizing the relationship between SNS use and life satisfaction. Specifically, the research outlined in this article will focus on using identity theory (closely matched to how (Stryker and Serpe 1994; Thoits 2013) define identity theory) instead of the metric used by Valenzuela et al. (2009) to examine how college students use Facebook is related to life satisfaction. Based on this framework, I will be combining the theoretical models outlined in Stryker and Serpe (1994) and Thoits (2013) to measure how Facebook identity, time spent on Facebook, feelings towards Facebook, and the number of friends affect life satisfaction.

# CHAPTER TWO

# LITERATURE REVIEW

### *Life Satisfaction, Well-Being and Online Interaction*

The study of life satisfaction has had a long history within sociology, social psychology and gerontology. Subjective well-being (SWB) has multiple affective and cognitive dimensions. (Diener 1984). The affective dimension relates to feelings (happiness, anxiety, boredom) and the cognitive dimension relates to judgments of satisfaction with life as a whole or specific aspects of life (job, marriage, school, self).

Friendship is a predictor of subjective well-being and can also be used to predict life satisfaction. Helliwell and Putnam (2004:1441) state “Frequent interactions with friends and neighbours are both associated with systematically higher assessments of subjective well-being.” Helliwell and Putnam continue, “…frequent interactions with friends are even more important (especially in the U.S.) than those with neighbours and family…” (2004:1441). This statement highlights the importance of informal social capital and how it is associated with subjective well-being.

Research on online interaction versus face-to-face interaction deserves some attention as it tries to measure the impact each has on our lives. Research establishes that friendships lead to higher levels of life satisfaction. In the same sense, online friendships and grouping should show similar results. For specific differences and similarities, Chan and Cheng (2004) conducted a qualitative study in Hong Kong asking 162 internet users about their face-to-face relationships and their online relationships with friends. They concluded that these relationships do differ, but the duration of the friendship diminished the differences.

Hawdon and Ryan (2012) also examine the difference and similarities of offline and online interactions in terms of their utility in coping with mass tragedies. Hawdon and Ryan (2012) link strong social support networks with individual health (mental and physical) and well-being after tragedies and investigates if this support can be provided with virtual networks. These researchers find that virtual communication significantly influences well-being only when in-person conversations are held constant. In that case, both variables are “significantly and positively related to well-being” (Hawdon and Ryan 2012:13). Face-to-face communication with family has the strongest effect on well-being. Thus, virtual communication “apparently cannot replace face-to-face contact as a means of support; it can, however, effectively supplement it” (Hawdon and Ryan 2012:15)

Undoubtedly, one of the primary reasons a person spends time on the Internet is to communicate with friends and acquaintances. One of the primary means of engaging in this communication is by using Facebook.  The market for access to Facebook users has become very large and, in response, almost every article, recipe and picture on websites can be shared to a Facebook account. The importance of Facebook does not end when a user walks away from the computer as one-half of the total users of Facebook access the social networking site only with a mobile device.  (http://newsroom.fb.com/company-info)

### *Background and Recent Research on Facebook*

While most people with access to internet are aware of the benefits of having a social networking page, businesses have also become aware of the accessibility of a new and growing market (Trusov, Bucklin and Pauwels 2009; Holzner 2009). Companies have invested millions in targeted advertisements available in Facebook that allow certain advertisements to display depending on a user's regional location. State institutions and universities have also noticed the importance of maintaining an active Facebook page, creating greater exposure to the growing amount of users. Although Facebook is now available to anyone over the age of 13 with a valid e-mail address, Facebook began as a college-student-only endeavor. Ellison et al. (2007) found that 94% of the undergraduate students surveyed were Facebook members. Similarly, Lee (2012) found that 95% of the African-American college students had a Facebook account. Facebook has become so prevalent in student life that undergraduate and graduate handbooks at Virginia Tech contain specific guidelines about creating friendships with professors and warn students to be aware of the information made available by using these sites. (Hokie Handbook 2012-2013 hokiehandbook.vt.edu, Virginia Tech)

Facebook's popularity is largely due to its functionality. Facebook allows people to connect with old and new friends, post status updates pertaining to their whereabouts and thoughts, send messages and chats directly to others, share pictures, play games, download coupons, and check on their favorite celebrities. Each Facebook user accesses their account to accomplish different things. There are plenty of aspects to having a Facebook account, but the main "feature" of this particular SNS is the "Friends" aspect. The more friends a Facebook user has, the larger his or her virtual social network is.

"Friending" someone on Facebook is a simple process that allows motivated users to obtain a friend network of over 1,000 friends easily. Facebook blurs the line of what we know as offline friendships and online friendships. Näsia, Räsänena and Lehdonvirta (2011) states that this difference lies with age "According to our findings, age is clearly the most significant factor in the identification process. Considerable generational differences in terms of identification exist, as the younger generations tend to have a stronger tendency towards identifying with online communities.” (Näsia et al. 2011:9)

Although the line between online and offline social networks has undoubtedly been blurred, how we define Facebook friends and “real world” friends are quite different. Classic definitions of friendship include Wright’s (1984:119) “a relationship involving voluntary or unconstrained interaction in which participants respond to one another personally…” or Hays’s (1988:395) definition “voluntary interdependence between two persons over time, that is intended to facilitate social-emotional goals of the participants, and may involve varying types and degrees of companionship, intimacy, affection, and mutual assistance.” Online interaction or computer-mediated communication (CMC) is the method of interaction used on newsgroups, websites, blogs and chat rooms (Chan & Cheng 2004).

While real world friends are most likely also a part of a person’s online friend circle, online friends may or may not be members of offline friendship networks (Chan & Cheng 2004, Lee 2011). Facebook allows people to maintain up to 4000 friends at any given time, while maintaining those friendships offline would be almost impossible. “Friendship maintenance” on Facebook can be anything from “liking” another person’s status, to posting[1] on their wall, or tagging[2] them in a photo. Friendships offline require a different level of maintenance that could include dinner parties, coffee talks, talking on the phone and going to a concert together. These types of friendship dynamics between online and offline friendships remain very different, but we must carefully examine how each type of friendship influences peoples’ lives.

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[1] “Posting” refers to the process of writing a note on a person’s Facebook page.

[2] “Tagging” refers to the process of identifying a friend in a photo, effectively sharing that photo with the friend.

To measure virtual interaction or CMC within Facebook, researchers have constructed “intensity” scales to gauge usage. The most common instrument of measure among current researchers is the Facebook Intensity Scale (FBI). The Facebook Intensity Scale was developed by Ellison, Steinfield and Lampe (2007) in order to account for more complicated user experiences. This scale aims to gauge user engagement in Facebook activities based on number of Facebook friends, amount of time spent on the network on a typical day, and response to the following statements: “Facebook is part of my everyday activity,” “I am proud to tell people I am on Facebook,” “Facebook has become part of my daily routine,” “I feel out of touch when I haven’t logged onto Facebook for a day,” “I feel I am part of the Facebook community at the campus,” and “I would be sorry if Facebook shut down.”

### *Identity Theory*

Valenzuela et al. (2009) and Ellison et al. (2007) used the Facebook Intensity Scale to measure virtual interaction. Both researchers concluded that intensity of Facebook use is positively associated with life satisfaction. I propose using identity theory to develop a new method for measuring Facebook use and modeling its’ effect on life satisfaction.

Stets (2013:31) states that “Generally, we consider an identity to be a shared set of meanings that define individuals in particular roles in society (for example, parent, worker, spouse, or teacher role identity), as members of specific groups in society (for example, a church, book club, or softball group identity), and as persons having specific characteristics that make them unique from others (for example, an athletic or artistic person identity).” In short, I propose that a person can have a Facebook role identity just like a person can have a student, parent or coach identity.

Social psychologists believe that people have many identities. Identities organized by level of subjective importance which some researchers define as identity salience or psychological centrality (Stryker and Serpe 1994; Thoits 2013). For this research, I will specifically examine identity salience. Stryker and Serpe (1994:17) says of identity salience "…defined as the readiness to act out an identity as a consequence of the identity's properties as a cognitive structure or schema." Stryker and Serpe (1994:17) further states, "Various identities thus are organized by the probability of their being invoked in a given situation or in a series of situations."

It is important to note that there are multiple concepts of identity salience in contemporary identity theory. Identity importance and readiness to invoke an identity are two concepts that Thoits (2013) specifies. Thoits (2013) studied these concepts with volunteers from the Mended Hearts self-help organization. She proposed that the importance of the volunteer identity and role enactment are directly related to a person's well-being. In her research, Thoits posited that "the more time spent in role performance, the more salient the visitor role-identity should be, which in turn should reinforce emotional and bodily well-being." (2013:390). This model represents identity salience as a mediator in the role-enactment to well-being relationship.

I view use Facebook identity salience as a variable similar to how Thoits (2013) views volunteer identity salience. Thoits says of the volunteer identity, "The volunteer identity is advantageous for this article's purposes because it is a role acquired by choice, and stressors in the role are low compared to those in obligatory roles (e.g., parent and employee), so the beneficial aspects of role occupancy are not counterbalanced by the strains of excessive role demands." (2013:378). Facebook is an identity that a person voluntarily acquires which lowers the role demands of this identity.

The activities, groups and functions of Facebook also allow for people to enact the same roles they value in their offline relationships in an online environment. For example, a Facebook user that is a recent mother can join a "New Mothers" group to exchange and receive valuable information about being a new mother. Thus, one can argue that a strong Facebook identity allows a person to extend their salient identities further.

The system of liking a status or sharing an update encourages commitment to these identities. It also encourages a user to seek out other friends with similar interests to increase the positive experience that identity provides. Stryker (2004:46) supports this argument by saying "When positive affect is linked to an identity, the feeling stems from meeting role expectations, and it encourages individuals to seek more relationships on the basis of that identity. Thus, interactive commitment to the identity is increased as is the social network and the salience of the identity." Interactive commitment, according to Stryker and Serpe's (1994:19) definition is "…the function of the strength of ties to others in social networks." A person with a strong Facebook identity would be more inclined to seek out more relationships to increase this "positive affect" and in turn increase interactive commitment and salience of the identity. McCall and Simmons (1978) and Stryker (2004) link positive emotions to the formation of social networks. Stets and Serpe (2013:46) summarize "because in dividuals who share common affective meanings are more likely to enter into and maintain social relationships." Stryker also believes the opposite is true in that a negative affect can also be present and cause a social network to decrease or reduce the salience of a particular identity. The functions of blocking[3] and “unfriending”[4] a person on Facebook are behaviors that could be associated with the negative emotional affect an identity can have.

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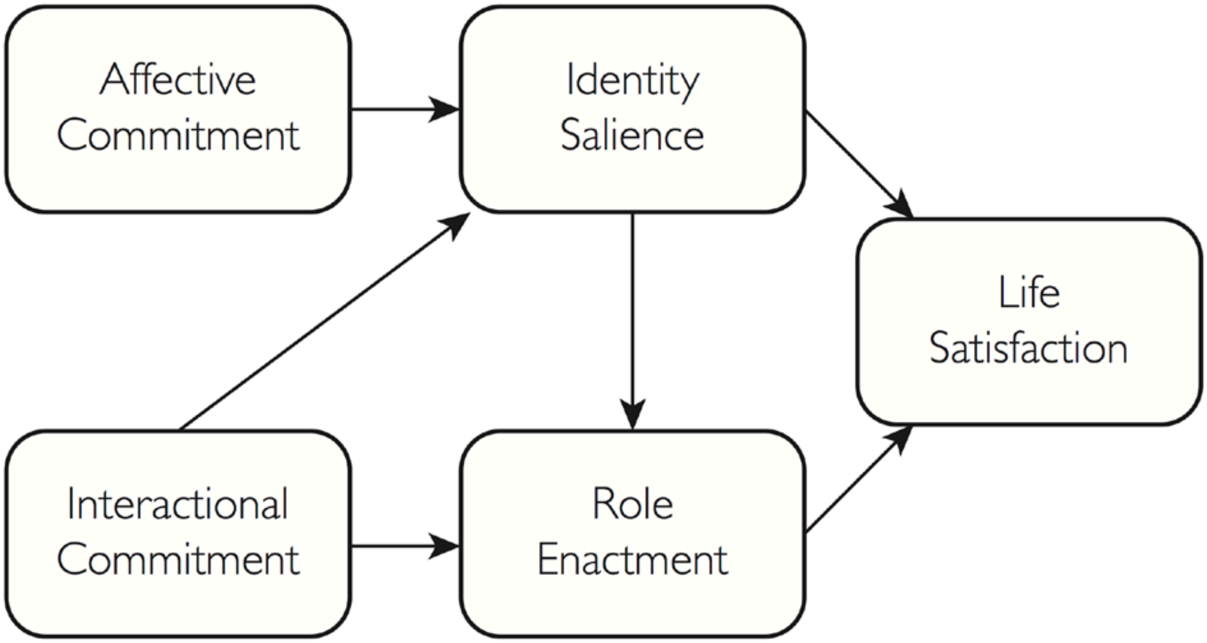
[3] Blocking refers to a Facebook user changing a setting that will no longer show a particular person's Facebook activity.

Although McCall and Simmons (1978), Stryker (1994), and Stets and Serpe (2013) are not speaking specifically about online social networks, there is certainly a parallel between online social networks and offline social networks. By establishing and measuring a Facebook identity, it is plausible to uncover a relationship linking importance of a person’s online social network to their overall life satisfaction.

I will use a theoretical model that combines elements of the model Stryker and Serpe (1994:21) and Thoits’s model (2013:376). This hybrid model can be seen in Figure 1.

Figure 1 - Theoretical Model:
Facebook Identity and Life Satisfaction



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[4] Unfriending is when a Facebook user removes someone who is already listed as a friend on their list.

The model in Figure 1 maintains Stryker and Serpe's (1994:20) theoretical relationship between commitment and salience variables as they state "the predominant direction of influence is from commitment to salience." The differences between my model and the Stryker and Serpe (1994) model appear where I place role enactment and life satisfaction. These differences are influenced by the Thoits's model (2013) that outlines the relationship between identity salience, role enactment and well-being. For the purposes of this research, life satisfaction takes the place of well-being and is the dependent variable. Identity salience is treated as a mediating variable between interactional commitment and life satisfaction and between affective commitment and life satisfaction. Role enactment is seen as an intervening variable between interactional commitment and life satisfaction.

This model in Figure 1 places life satisfaction as the dependent variable with identity salience and role enactment having direct pathways to it. Moving from right to left, identity salience has direct pathways to role enactment, interactional commitment and affective commitment. According to the Stryker and Serpe (1994) model, affective commitment and identity salience has a direct pathway, but their model has role enactment as the dependent variable. The current model also does not reflect this relationship; however, I hypothesize a direct path from interactional commitment to role enactment to measure how role enactment mediates the relationship of interactional commitment and life satisfaction. To simplify the relationship between the commitment variables and life satisfaction, I did not add a direct relationship between affective commitment and interactional commitment.

Matching the data with the variables in this model required the "Facebook Intensity Scale" to be dissected into several constructs of identity theory. Identity salience is measured in Thoits's (2013) research by two conceptions of identity salience, but I only use the measure of identity invocation. The survey asked respondents to rate "I am proud to tell people I am on

Facebook" , which fits the identity invocation construct supported in research by Thoits (2013) and Stryker and Serpe (1994). This concept is represented by "Identity salience" in the model.

The Facebook Intensity Scale asks respondents to answer "How much time do you spend on Facebook a day?" The responses to this question satisfy both Stryker and Serpe's (1994) and Thoits's (2013) definition of role enactment.

Interactional commitment is defined by Stets as (2013:36) "…a quantitative indicator, . . . made up of the number of people an individual interacts with as a result of holding a given identity and the numbers of interactions with those people." This concept is nicely reflected by the variable from the Facebook Intensity Scale that asks respondents about how many Facebook friends they have. Specifically, the question asks, "How many Facebook Friends in total do you have?" The responses to this question represent interactional commitment in the current model.

Affective commitment is defined then defined by Stets as (2013:37) "assessments of how others see them with respect to their behavior within the identity, and the amount of affective discomfort they would experience if they were no longer engaged in interaction with others associated with an identity." In the Facebook Intensity Scale data, respondents are asked to respond to several questions used to measure how they would feel if they were not a part of the Facebook community anymore.

Based on the model (Figure 1) I predict that Facebook identity and the Facebook role are related to greater life satisfaction when taking into account the number of friends and time spent on Facebook. This model suggests that identity salience and role enactment have a direct relationship with life satisfaction, and that affective commitment and interactional commitment have an indirect relationship with life satisfaction.

This model also suggests several hypotheses that go along with my stated hypothesis above. In this model, the greater the affective commitment and the greater the interactional commitment the more salient a student's Facebook identity will be. In addition, the greater the interactional commitment, the greater the level of role enactment that will be reported. Another suggested hypothesis is the more salient an individual's Facebook identity is, the higher the role enactment that will be reported.

### *Other Determinants of Well-being*

Other social factors also predict life satisfaction as well, such as income, health and age. Subjective well-being and life satisfaction have also been linked to another aspect of a person's life: income. Research shows that people with higher incomes usually report a higher life satisfaction (Diener 1984,1999). Helliwell and Putnam (2004) note there is diminishing return on improved life satisfaction with reports of higher income above the median. Those with lower-than-average to average incomes often claim that money can buy happiness, but this is not the case for the relatively well-off. The poor and lower middle-class families deal with the stress of job loss, childcare and healthcare expenses, debt payments, environment location and other factors that the well-off may not experience. One can assume that being well-off comes with another set of consequences that affect life-satisfaction, like stress of a fast-pace environment and long work hours. Nevertheless, in general, the higher the income, the greater the expressed level of life satisfaction.

### *Research Problem*

My goal in this research is to examine the relationship between Facebook identity and life satisfaction. Valenzuela et al.'s (2009) original project used "Intensity of Facebook use" to identify a relationship with life satisfaction, social trust and civic/political participation. In contrast to their study, I will instead use the data to measure a Facebook identity, and test how that identity affects life satisfaction.  In addition, I will use role enactment and identity salience as mediating variables to explain the relationship between interactional commitment, affective commitment and life satisfaction.

# CHAPTER THREE

# METHODS

## *Data*

Valenzuela et al. (2009) provided the data for this research project. The survey deployed in the study was aimed to examine only young adults, so they limited their sample to college students. As of January 2014, there are approximately, 180,000,000 Facebook users in the United States. 45% of these users are male and the remaining 55% are female. 23% report they are in the 18-24 age range and approximately 24% report they are in the 25-34 categories. This means that approximately 50% of the Facebook users are between the age of 18 and 34.

Valenzuela and associate (2009) conducted a web-based survey in the Fall of 2007 at two large public universities in Texas, one in a small town university and the other located in a metropolitan area. These universities were selected to create cultural and geographical diversity and to accurately represent young adults across Texas. The researchers submitted the survey to 50% of the registered students who elected to post their information publicly. From November of 2007 to December of 2007, they were able to acquire responses from 3,296 individuals. Participants were given the chance to enter for $25 Amazon.com gift cards as an incentive to participate. Valenzuela et al. (2009) used the age group of 18-29 to conduct their research to focus on college students only which resulted in an analytic sample of n = 2,603. I also filtered my responses by age but placed the restriction from ages 18-60. My analytic sample size is now n = 2,879.

The response rate for the survey was 8.2%. The researchers considered this a low response rate, but concluded that the sample was representative of the student population of both universities (Valenzuela et al 2009). The larger university's sample was 74% White, 10% Latino, 4% Asian, 3% Black, 1% Native American, 2% International, and 6% Other or unknown (n = 2,215). The other university's sample was more ethnically diverse with 67% White, 8% Latino, 8% Asian, 8% Black, 3% Native American, 10% other or unknown (n = 1081). The samples overrepresented males. 37% of the responses at the larger university were male and 63% were female (actual university breakdown = 53% male, 47% female). 29% of the responses at the smaller university were male and 71% were female (actual university breakdown = 43% male, 57% female).

### *Measures*

*Life satisfaction.* The dependent variable in this research is life satisfaction. Following (Valenzuela et al. 2009), I will use the Diner, Emmons, Larson and Griffin (1985) Satisfaction with Life Scale. The scale contains five questions that range from 1 (strongly disagree) to 6 (strongly agree). The questions are: "In most ways my life is close to my ideal," "The conditions of my life are excellent," "I am satisfied with my life," "So far I have gotten the important things I want in life," and "If I could live my time over, I would change almost nothing." The Cronbach's alpha for this scale is .87. The scale's mean is 22.51 and standard deviation is 4.76

*Facebook role enactment.* I will define role enactment in a similar way that Thoits defines the concept. In her research, volunteer role enactment was measured by asking the respondents about how many hours they performed the volunteer role weekly and their perceived time spent in the volunteer role overall (2013;382). To measure role enactment, I will use the responses to the item "In the past week, on average, approximately how many minutes per day did you spend on Facebook?” The responses range from: 1 “less than 10 minutes” to 6 “more than 180 minutes.”

*Facebook identity salience.* Facebook identity salience will be measured using the response from the survey item “I am proud to tell people I am on Facebook.” The responses range from 1 through 6, with 6 being the highest level “proud” one can be when telling people they are on Facebook.

*Affective commitment and interactional commitment.* Stryker and Serpe (1994) defines interactional ties and affective ties as two distinct types of commitment. “Commitment in Stryker's terms is defined by the social and personal costs entailed in no longer fulfilling a role based on a given identity.” (Stryker 1980). Affective commitment will be measured by the responses to three survey items “I feel out of touch when I haven’t logged onto Facebook for a day,” “I feel I am a part of the Facebook community at…,”and “I would be sorry if Facebook shuts down”. Affirmative answers to these questions indicates the respondents feel there would be an emotional cost associated with being left out of the Facebook community. To measure this sense of affective commitment, a scale was created using the above items. The response choices for these questions ranged from 1 (strongly disagree) to 6 (strongly agree). A reliability test showed we could use these responses for a mid-satisfactory affective commitment scale (Cronbach’s alpha = .794).

Finally, interactional commitment was measured by the respondent’s total number of Facebook friends.

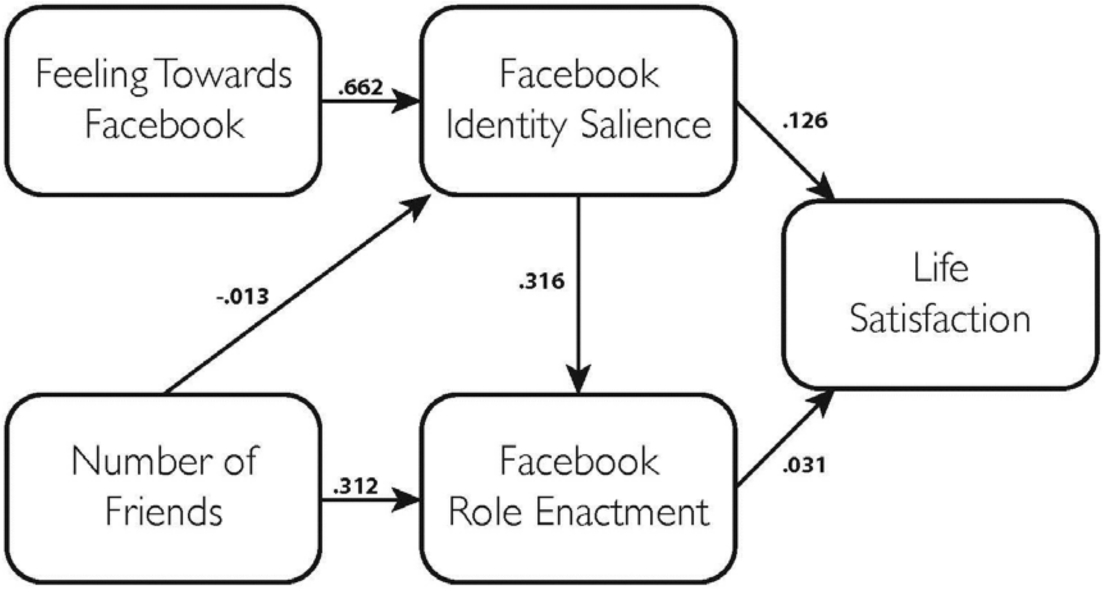
### *Data Analysis*

I will use multiple regression analysis to measure how a student's Facebook identity salience, enacting the Facebook role, interactional commitment and affective commitment influence life satisfaction. An analysis will be used in order to illustrate the effects of each variable on life satisfaction. After the initial analysis is complete, I will then isolate each gender to show any differences in coefficients.

# CHAPTER FOUR

# RESULTS

**Figure 2 - Path Model 1**


Feeling Towards Facebook
.662
Facebook Identity Salience
.126
Life Satisfaction
-.013
.316
Number of Friends
.312
Facebook Role Enactment
.031

The first step was to estimate the model's path coefficients. These can be seen in Figure 2.

We see in the model that the direct path from feeling towards Facebook to Facebook identity salience is strong (Beta = .662) and statistically significant (*p* < .001). Facebook identity salience is directly related to both Facebook role enactment (Beta = .316; *p* < .001) and life satisfaction (Beta = .126; *p* = < .001) . The direct path from number of friends to Facebook identity salience is weak (Beta =-.013) and not significant and the direct path from number of friends to Facebook role enactment is strong (Beta = .312) and statistically significant (*p* < .001). Facebook role enactment has a direct path to life satisfaction (Beta = .031) and is not significant (*p* > .1).

The next step is to reconstruct the empirical correlations for each pair of variables in the model. This is a test of the model's overall fit to the data. We can reconstruct the empirical correlations using the standardized beta coefficients. A table of the reconstructed correlations is presented below, and to test how the model fit the data, we compare the reconstructed and empirical correlations. Any difference of .10 or greater between the reconstructed and empirical correlation will be considered as indicating a poor model fit. These are bolded in Table 1.

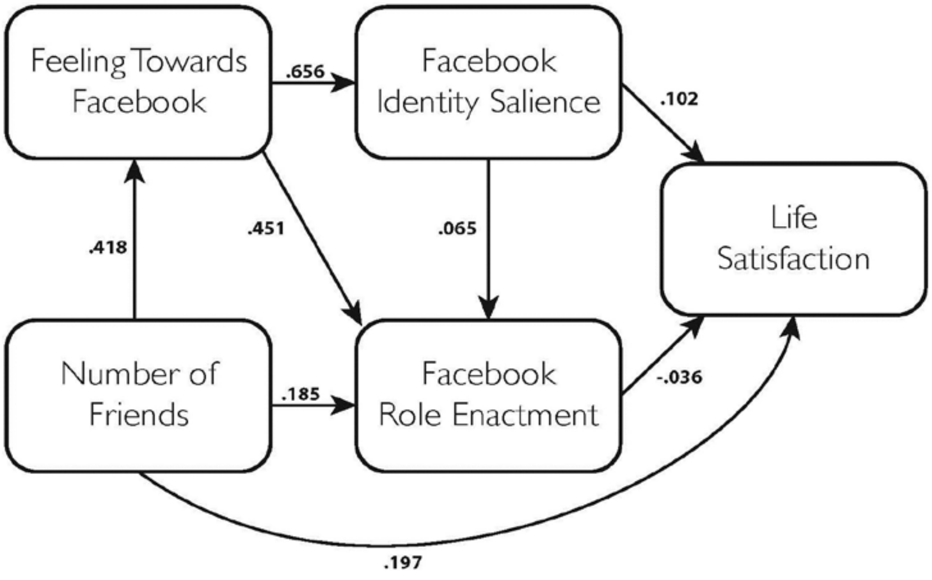
**Table 1: Path Model 1 Reconstructed Correlations**

| **Variables** | **Reconstructed Corr.** | **Empirical Corr.** | **Difference** |
|---|---|---|---|
| Facebook identity salience/Life Satisfaction | .136 | .137 | .001 |
| Facebook role enactment/Life Satisfaction | .07 | .076 | .006 |
| Feeling Towards Facebook/Life Satisfaction | .089 | .141 | .0516 |
| **Number of Friends/Life Satisfaction** | **.020** | **.204** | **.184** |
| Facebook identity salience/Facebook role enactment | .316 | .398 | .082 |
| **Facebook identity salience/Number of Friends** | **.086** | **.262** | **.176** |
| Facebook identity salience/Feeling Towards Facebook | .662 | .656 | .006 |
| Facebook role enactment/Number of Friends | .308 | .394 | .086 |
| **Facebook role enactment/Feeling Towards Facebook** | **.208** | **.577** | **.369** |
| **Number of Friends/Feeling Towards Facebook** | **.057** | **.418** | **.361** |

Several variables showed a large correlation difference. In particular, the reconstructed correlation between number of friends and life satisfaction seriously underestimates the empirical correlation between these variables. This is troubling because numerous research studies show a clear relationship between the number of friends a person has and their overall life satisfaction. Facebook identity salience and number of friends also show a large different in correlation. Although the model has a direct pathway between the two, this could be eliminated by removing this relationship since the regression analysis shows a weak path (Beta = - .013) and it not statistically significant ($p > .1$). Facebook role enactment and feeling towards Facebook have a large correlation difference (.369) and could be reduced by adding a direct path between these variables since they have a statistically significant bi-variate correlation (p < .001). Finally, number of friends and feeling towards Facebook show a large difference in correlation. These two variables have a significant relationship (p <.001) therefore adding a direct path could reduce this difference.0

In order for a model to fit the data well, these reconstructed relationships must be stronger. To achieve this, I created a second model (Figure 3) that adds a direct path from number of friends to life satisfaction, a direct path from number of friends to feeling towards Facebook, and a direct path from feeling towards Facebook to Facebook role enactment. The path from number of friends to Facebook identity salience was removed because it was not statistically significant therefore it was not needed. Although the path from Facebook role enactment to life satisfaction was not statistically significant, it is critical to the theoretical model I am using. Therefore, with the added path from number of friends, the regression analysis on life satisfaction may yield different results for Facebook role enactment.

**Figure 3 - Path Model 2**


Feeling Towards Facebook
.656
Facebook Identity Salience
.102
Life Satisfaction
.418
.451
.065
Number of Friends
.185
Facebook Role Enactment
-.036
.197

This model (Figure 3) has four differences than the previous version. A direct path from feeling towards Facebook to Facebook role enactment has been added, along with a direct path from number of friends to feeling towards Facebook and the path from number of friends to Facebook identity salience has been deleted. Most importantly, a direct path from number of friends and life satisfaction was added to highlight this relationship with the model more effectively. The results of these changes yielded a better-fitting model.

The direct path from feeling towards Facebook to Facebook identity salience is strong (Beta = .656) and statistically significant ($p$ <.001) and also to Facebook role enactment is strong (Beta = .451) and statistically significant ($p$ <.001). Facebook identity salience is directly related to Facebook role enactment (Beta = .065) and statistically significant at ($p$ < .005) and has a direct path to life satisfaction which is strong (Beta = .102) and statistically significant ($p$ < .001). Number of friends is still connected with Facebook role enactment (Beta = .185 and $p$ < .001) but now has two new pathways in this model. Number of friends has a new direct pathway to feeling towards Facebook and it is strong (Beta = .418) and statistically significant ($p$ < .001). Number of friends and life satisfaction share a direct path and is strong (Beta = .197) and statistically significant ($p$ < .001)

The path between Facebook role enactment and life satisfaction is the only relationship that is not statistically significant in this model ($p$ > .1).

**Table 2: Reconstructed Correlations of Path Model 2**

| Variables | Reconstructed Corr. | Empirical Corr. | Difference |
|---|---|---|---|
| Facebook identity salience/Life Satisfaction | .157 | .137 | .020 |
| Facebook role enactment/Life Satisfaction | .083 | .076 | .007 |
| Feeling Towards Facebook/Life Satisfaction | .23 | .141 | .089 |
| Number of Friends/Life Satisfaction | .22 | .204 | .016 |
| Facebook identity salience/Facebook role enactment | .41 | .398 | .012 |
| Facebook identity salience/Number of Friends | .369 | .262 | .107 |
| Facebook identity salience/Feeling Towards Facebook | .697 | .656 | .041 |
| Facebook role enactment/Number of Friends | .390 | .394 | .004 |
| Facebook role enactment/Feeling Towards Facebook | .568 | .577 | .009 |
| Number of Friends/Feeling Towards Facebook | .519 | .418 | .101 |

All of the variables in Table 1 that had a correlation difference greater than .1 have been reduced significantly by this revised model (Figure3). These correlations can be seen on Table 2. This shows that the relationships between (number of friends and life satisfaction), (Facebook identity salience and number of friends), (Facebook role enactment and feeling towards Facebook) and (number of friends and feeling towards Facebook) were greatly underestimated in the first model.

**Table 3: Direct and Indirect Effects on Life Satisfaction**

| | Direct Effect | Indirect Effect |
|---|---|---|
| **Facebook identity salience/Life Satisfaction** | .102 | .05 |
| **Facebook role enactment/Life Satisfaction** | -.036 | .12 |
| **Number of Friends/Life Satisfaction** | .197 | .02 |
| **Affective Commitment/Life Satisfaction** | .000 | 0 |

The path model illustrated in Figure 3 shows four distinct pathways to our dependent variable of life satisfaction. Table 3 shows that Facebook identity salience has a direct effect (.102) and an indirect effect (.05) on life satisfaction. Number of friends has a direct effect (.197) and an indirect effect (.02) on life satisfaction which explains why adding this direct relationship helped this model be a better fit for the data. From Facebook role enactment, there is a pathway directly to life satisfaction or through Facebook identity salience and then to life satisfaction. Facebook role enactment has a small direct effect (-.036) and an indirect effect (.12) on life satisfaction. This relationship was found to be not significant.

There are several indirect paths from Facebook role enactment to life satisfaction in the model (Figure 3), with one going through number of friends and the other passing through Facebook identity salience. Feeling towards Facebook is the only variable without a direct effect (0) on life satisfaction in this model.

*Gender Differences*

**Table 4: Means and Standard Deviations of Variables by Gender (n = 2165)**

| | **Mean Total (SD)** | **Mean Male (SD)** | **Mean Female (SD)** | **T-Test** |
|---|---|---|---|---|
| **Number of Friends** | 6.00<br>(2.61) | 5.67***<br>(2.61) | 6.14<br>(2.59) | 3.99 |
| **Facebook role enactment** | 3.35<br>(1.29) | 3.12***<br>(1.22) | 3.48<br>(1.30) | 6.28 |
| **Facebook identity salience** | 4.25<br>(1.31) | 4.04***<br>(1.41) | 4.35<br>(1.26) | 5.04 |
| **Life Satisfaction** | 22.51<br>(4.76) | 22.08***<br>(5.01) | 22.91<br>(4.46) | 3.74 |
| **Feelings Towards Facebook** | 11.5<br>(3.99) | 10.77***<br>(3.93) | 11.96<br>(3.93) | 6.65 |

*** All differences between male and females are statistically significant at the $p < .001$ level

**Figure 4 - Path Model for Females Only**

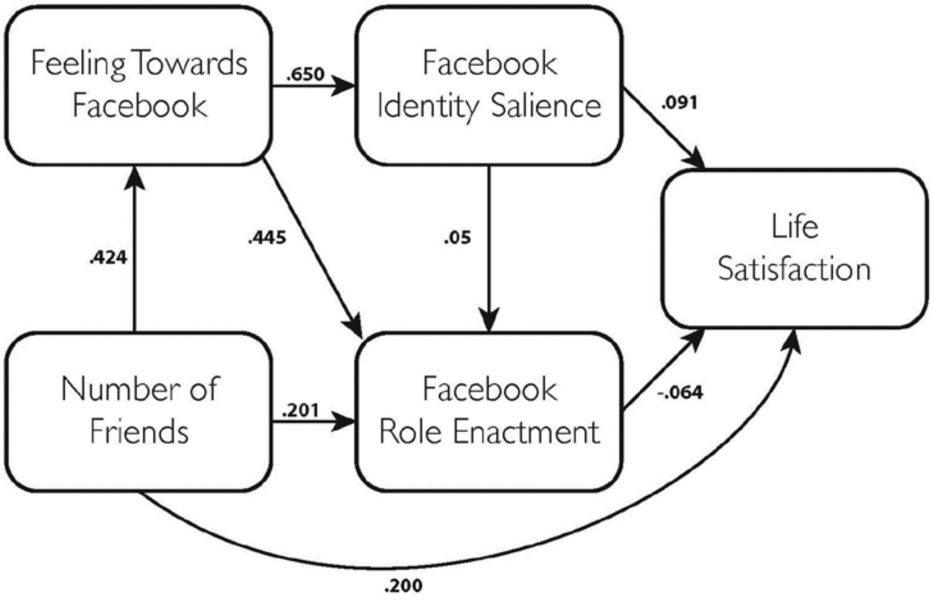
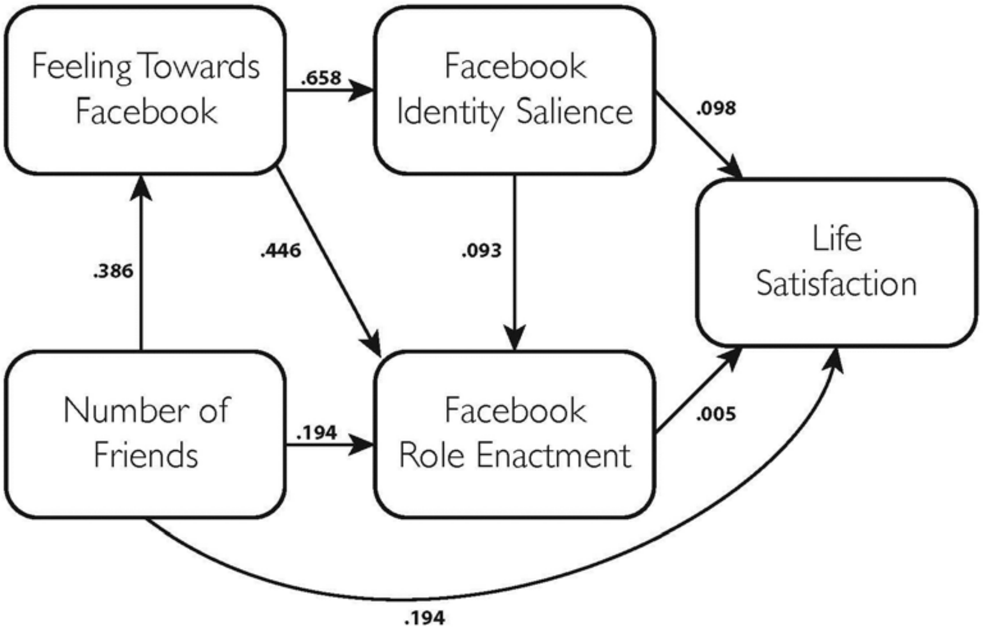

Feeling Towards Facebook
.650
Facebook Identity Salience
.091
Life Satisfaction
.424
.445
.05
Number of Friends
.201
Facebook Role Enactment
-.064
.200

**Figure 5 - Path Model for Males Only**


Feeling Towards Facebook
.658
Facebook Identity Salience
.098
Life Satisfaction
.386
.446
.093
Number of Friends
.194
Facebook Role Enactment
.005
.194

There has been specific research (Belle 1987; Stryker 1987; Wiley 1991) conducted on gender differences regarding identity salience and commitment. Stryker (1987) states that gender could affect identity salience and that gender can limit or enhance interactional commitment. Wiley

(1991:498) also cites Stryker (1987) but contends work and family identities differ between genders because "the actual meaning of the role identities differs and, second, the identities differ in salience and commitment."

Stryker (1987) also discusses gender differences in commitment. According to Stryker (1987) and Wiley (1991), commitment can be broken into two dimensions. Extensiveness refers to the number of network connections and intensiveness refers to the importance of those connections. Wiley (1991:500) cites Belle's (1987) research that finds men have more extensive social networks and women have more intensive social networks. Since previous researchers have found significant differences in gender regarding identity salience and commitment, it is important to test for possible gender differences.

To begin, Table 4 reports the means for each variable in the path models (Figure 4 and 5) for the total sample and separately for males and females. In addition, the table reports the results of independent-sample t-tests that test if the means significantly differ by gender. As can be seen, there are significant differences between males and females on each of these variables. Every mean reported for females are higher than that of males. In particular, females overall reported a higher life satisfaction (22.91) and more time on Facebook (3.48) than males.

To test for gender differences, I ran path model 2 (Figure 3) for females (Figure 4) and males (Figure 5) separately. The betas recorded for each variable pathway for both males and females were statistically similar with the exception of Facebook role enactment and life satisfaction. When running the model for females only, the path from Facebook role enactment to life satisfaction is weak (Beta = -.064) but statistically significant ($p < .05$). When running the model for males only, Facebook role enactment dropped out of statistical significance ($p$ =.894). The results reported in Table 5 could suggest that time spent on Facebook could be more significant for females than males.

However, the effect on life satisfaction is low for both males (Beta = .005) and females (Beta = -.064) regardless of significance. Table 5 highlights the significant values for females.

**Table 5: Linear Regression of Life Satisfaction with Facebook identity salience, Facebook role enactment and Number of Friends**

| | Minutes/Day (Normal) | Minutes/Day (Male) | Minutes/Day (Female) |
|---|---|---|---|
| Sig. | .125 | .894 | **.026** |
| Beta | -.036 | .005 | **-.064** |

# CHAPTER FIVE

## DISCUSSION AND CONCLUSIONS

Through my use of identity theory, I created a combined theoretical model (Figure 3) that incorporates elements of Stryker and Serpe's model of salience and centrality (1994) and Thoits's model of volunteer identity (2013). Most importantly, the model worked well in proving identity theory can work to measure Facebook use and its' affect on life satisfaction. As such, this model could be used to test the importance of other identities for contributing to well-being. This finding is an important contribution to future research in identity theory and work on subjective well-being.

In terms of looking at the Facebook identity, the results were encouraging. I found as a user's Facebook identity salience increased, the higher their life satisfaction will be. In turn, the higher the number of minutes a Facebook user spends on Facebook, the lower the reported life satisfaction will be. The model also suggests that affective commitment and interactional commitment play vital roles in explaining the variance in life satisfaction among Facebook users. One of the more important relationships highlighted in this research is that the more friends a Facebook user has, the higher the life satisfaction this person reports.

A person with a lot of Facebook friends also reports a higher Facebook salience, but when considering role enactment, this can have an adverse effect. We can assume that what is really important to a salient Facebook user is the number of friends they have. My research shows that interactional commitment's direct effect is significant for life satisfaction, role enactment and affective commitment. Adding a mediating variable such as Facebook role enactment only reduces its effect on life satisfaction. In all cases, Facebook role enactment was not related to higher life satisfaction. One of the more interesting discoveries of this research is that the data shows a non-significant relationship between life satisfaction and role enactment.

Taking the model a step further required isolating females (Figure 5) and males (Figure 4) to examine if there were any differences in the paths. The most significant finding in the gender models was that Facebook role enactment was only significant for females and that surprisingly, all other variables were consistent. Just like the model that included both genders, Facebook role enactment has a negative relationship (Beta = -.064) with life satisfaction for females. The model could suggest that females require less time on social media in order to get same levels of life satisfaction as males. As the model currently stands, there does not seem to be an obvious reason as to why there is a difference for males and females regarding Facebook role enactment. Why did we see this finding and why did role enactment have such little effect? In short, the answer is "I don't know," but it is important to consider the differences in the role that I am examining versus other research in identity theory.

Belle (1987), Stryker (1987) and Wiley (1991) all make arguments for differences in gender regarding commitment and identity salience. The key difference is the type of role in question. For my research, I focused on a role that we can consider to be voluntary. Thoits (2013:378) thought the selection of the volunteer identity was appropriate for her research because "it was a role acquired by choice, and the stressors in the role are low compared to those in obligatory roles." The Facebook identity is a role that is certainly acquired by choice. Unlike being a parent or spouse, it does not come with daily life stressors. These obligatory roles, as Thoits (2013) describes them, are high stress, which could be the reason we see these roles having a greater effect on life satisfaction than the effect Facebook has. The more overall importance an identity has in a person's life, the more likely that role will have a greater effect on an individual's life satisfaction. If a person fails at being a good employee and is laid off, the effect would be greater than a person who did not get to log a certain amount of hours on Facebook in the week.

The negative effect of Facebook role enactment would suggest that users do not need to spend significant amounts of time using this medium to interact with their friends and family for enjoyment. While it is clear that some level of life satisfaction can be gained through using Facebook, it also supports theories that offline relationships and face-to-face communication may hold a higher value. A person can post a political statement, a birthday wish, or an image of their most recent vacation but this interaction is asynchronous. This means a response to this post could take minutes, hours or even days. Unlike a phone conversation or dinner party, the interactions are happening instantaneously. In this case, we could understand why spending more time on the phone with a friend could lead to higher reported life satisfaction than spending more time on Facebook where the immediate interaction is not guaranteed. This relationship makes it difficult to compare online social interactions with offline social interactions.

Previous research, including the research used to build this study, have concluded that Facebook use and its intensity contribute directly to overall life satisfaction. However, in my study I have discovered there could be key interactions missed by combining the responses in the Facebook Intensity Scale. While each method showed a positive correlation with Facebook use and life satisfaction, the use of identity theory to decouple the concepts used in the Facebook Intensity Scale gets closer to explaining the “why” Facebook is related to well-being. In future research regarding social media and its’ effect on life satisfaction and well-being, the constructs of identity theory should now be considered.

I believe this model could be used for future research dealing with many other forms of social networking sites. It shows more clarity of how interactional commitment affects other variables indirectly and directly. It is critical to note however, that the variable for role enactment could need further examination. As evidenced by my findings, role enactment either played a very small role or did not affect life satisfaction at all. We know through previous research on identity theory like Styker (1994) and Thoits (2013), role enactment plays a vital part in determining role identity and well-being. We could theorize that role enactment in traditional identity theory assumes a synchronous interaction and therefore does not translate very well to asynchronous online interactions.

### *Limitations and Future Research*

My research extended a study performed by Valenzuela et al. (2009) on college students at Texas universities. While the number of respondents was satisfactory, we can assume that the cohort does not represent the broad spectrum of Facebook users around the United States. It is important to note that college students themselves represent a very narrow demographic that is hard to compare to other groups. The ages used in my research, 18-29, could create a bias towards people who use Facebook more frequently than other groups. Other researchers have found that topical interest significantly increases the likelihood of participating in surveys (e.g. Shropshire, Witte, and Hawdon 2009). It is therefore likely that with a low response rate of 8.2%, our sample is skewed towards people who wanted to answer questions about Facebook or people who thought the research was important enough to respond. It is therefore important to keep this bias in mind when trying to interpret these findings.

It will be important in the upcoming years to examine the differences between age groups considering that Americans are getting online at younger and older ages. In particular, if we were to examine younger Facebook users, we may see a dramatically different response for several reasons. Milner (2004) discusses how status is extremely important to teens, in part because they lack roles that give them power. Thus, it is likely that the number of friends (interactional commitment) is more important for youth then for older people. As Milner (2004, 30) states, "When groups are excluded from economic and political power and given little respect, they may build a new identity rooted in a new status system." Hawdon (2014) makes a similar argument. Thus, it could be hypothesized that the affective commitment of a Facebook identity role is amplified for a teenager, especially compared to an older individual who has developed more roles of power (parent, spouse, employee, etc.).

The other limitation as stated in the discussion is about how I examined role enactment. The differences of the synchronous relationships assumed in traditional identity theory versus my version revealed some weaknesses in my approach. In the future, I would like to examine `which measure of role enactment best fits when applied to online interactions. Average number of likes per post, or a combination of all social networking interactions could be a better approach to this metric.

One of the final limitations to consider when performing the type of research based on a technology would be how that technology evolves over the course of the research. Since I began this project in 2012, Facebook has changed dramatically. Since 2012, Facebook went public with an opening value of over $104 billion and acquired several other social networking tools such as WhatsApp and Instagram. Even now, Facebook continues to integrate other features and technologies. As the actual medium evolves, so does the users. We already see trends that users in the age ranges of 13-17 and 18-24 have decreased by 11 million users from 2011 to 2014 (Time 2014). The data originally acquired for this research in 2009 could already be outdated if we considered these changes.

### *Conclusion*

Identity theory has made large contributions to our understanding of how our identities affect our role behavior and our well-being. Recent research in identity theory has taken the discipline even further by exploring gender, race, and socioeconomic differences in various roles. My research takes identity theory in another direction by applying it to our roles in social media. I argue that identity theory should be considered in future sociological work concerning social media to help us understand more clearly how our lives are affected by our online interactions. More importantly, we can begin to understand the importance of social media to teenagers and how it may help them achieve status. Gender differences (or the lack thereof) should also be examined to see if time in a social media role negatively affects life satisfaction for females on other mediums. I look forward to seeing how identity theory can be used to expand conversation on the effect of social media on our lives and I hope my research is that starting point.

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# APPENDIX A

## LIST OF FIGURES

Figure 1 - Theoretical Model:
Facebook Identity and Life Satisfaction

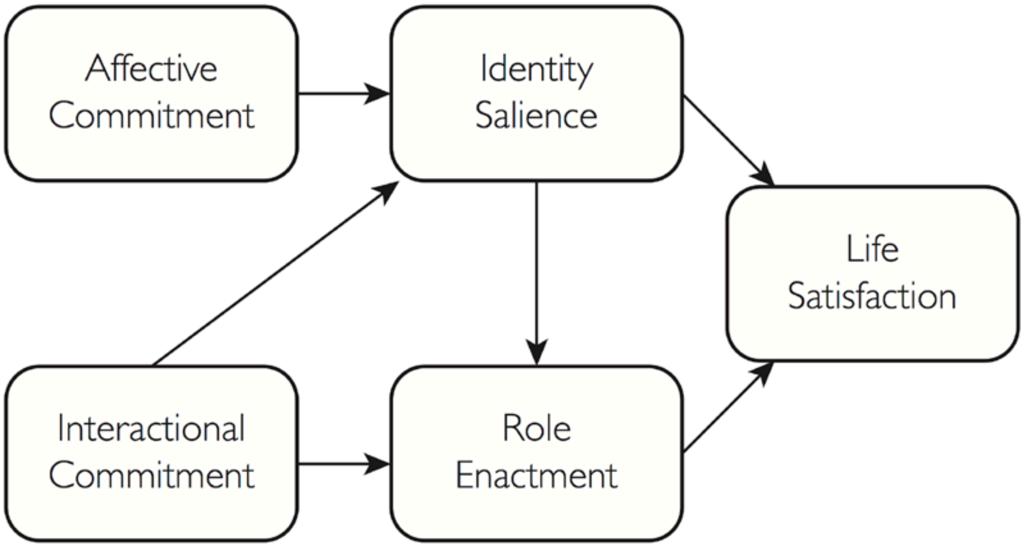
Affective Commitment
Identity Salience
Life Satisfaction
Interactional Commitment
Role Enactment

**Figure 2 - Path Model 1**

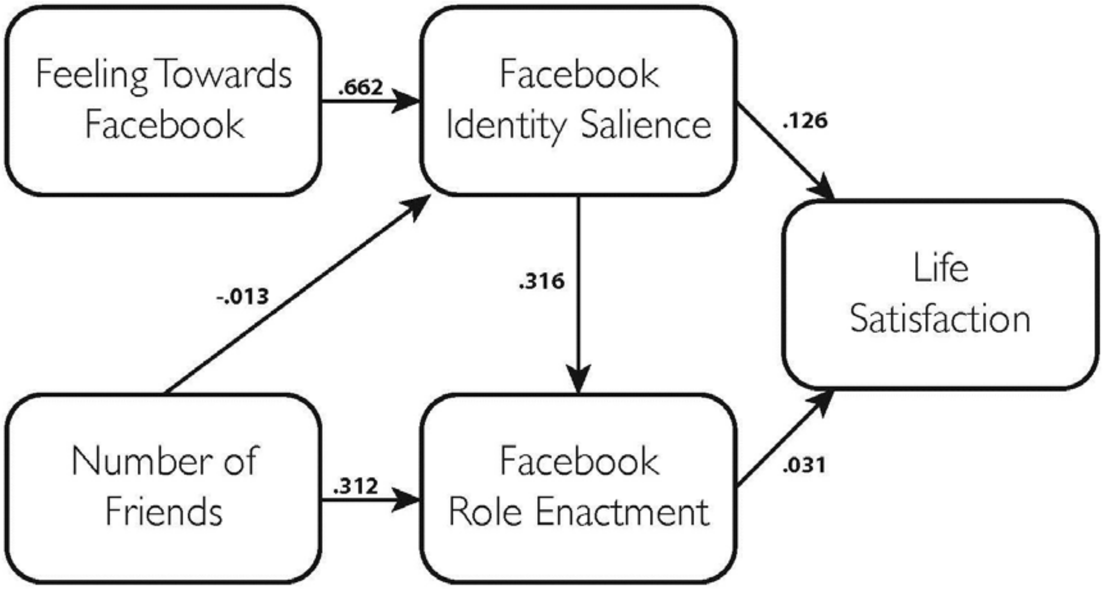
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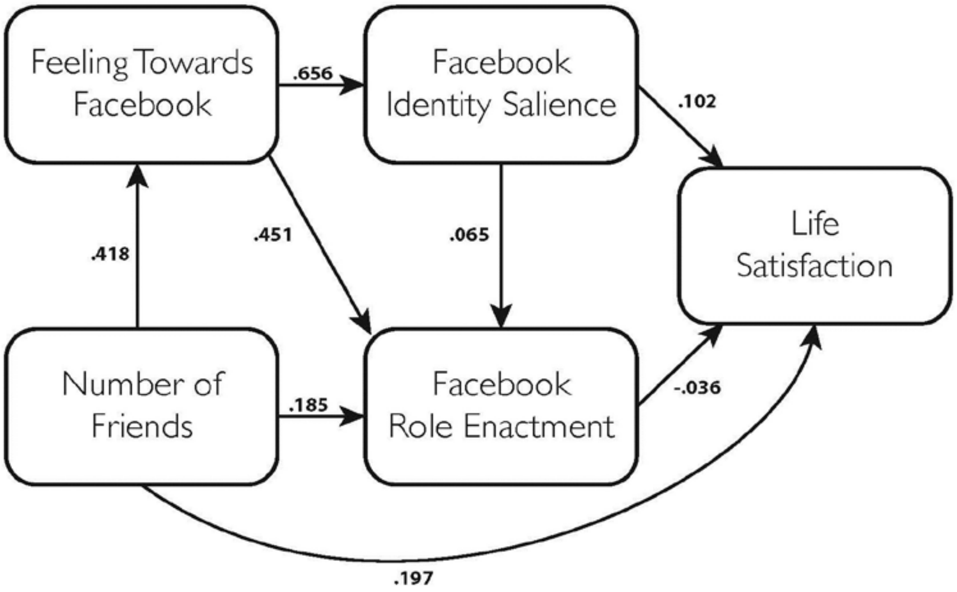
**Figure 3 - Path Model 2**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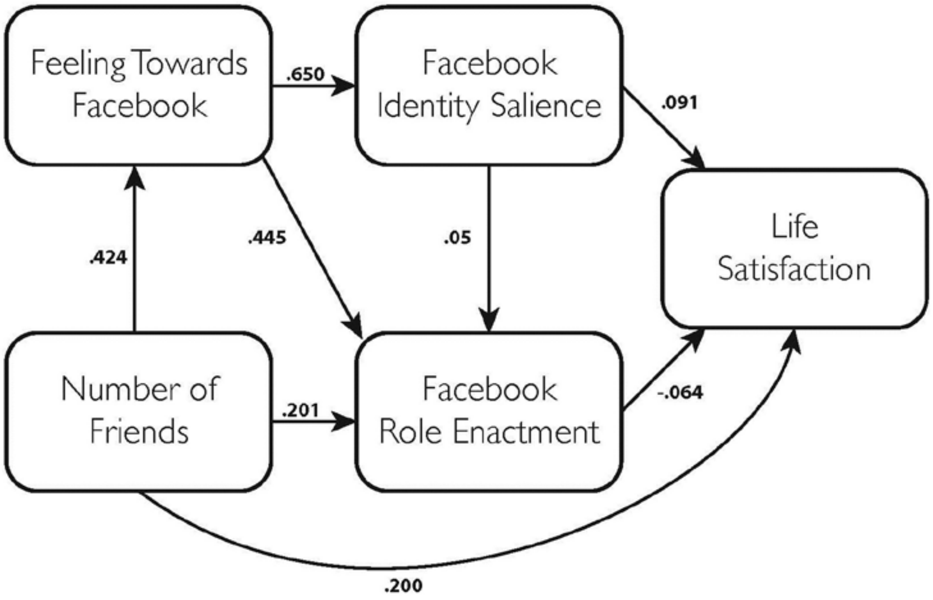
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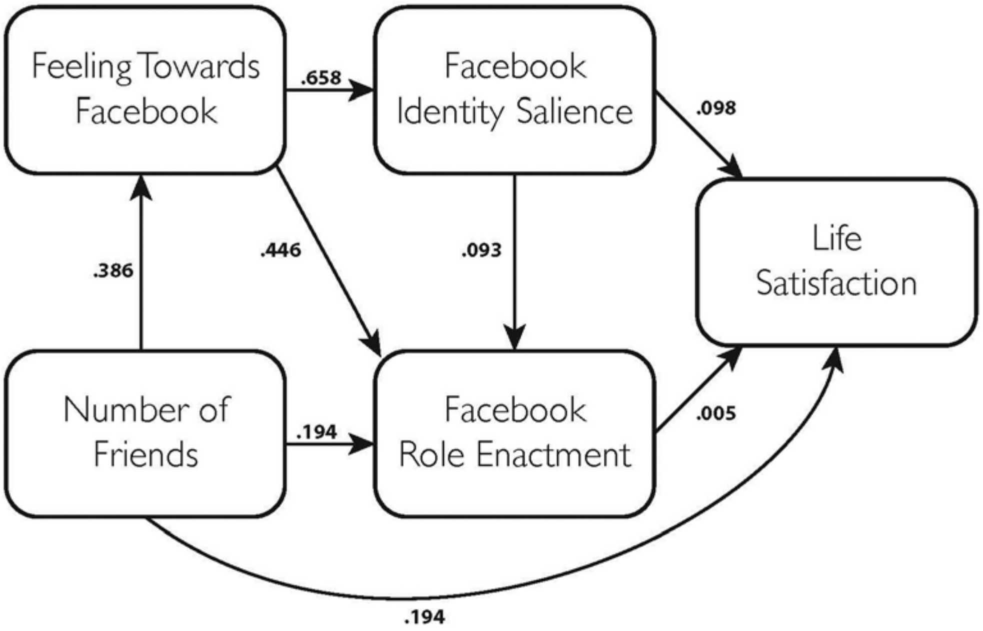
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## APPENDIX B

## TABLES AND GRAPHS

### Table 1: Path Model 1 Reconstructed Correlations

| Variables | Reconstructed Corr. | Empirical Corr. | Difference |
|---|---|---|---|
| Facebook identity salience/Life Satisfaction | .136 | .137 | .001 |
| Facebook role enactment/Life Satisfaction | .07 | .076 | .006 |
| Feeling Towards Facebook/Life Satisfaction | .089 | .141 | .0516 |
| **Number of Friends/Life Satisfaction** | **.020** | **.204** | **.184** |
| Facebook identity salience/Facebook role enactment | .316 | .398 | .082 |
| **Facebook identity salience/Number of Friends** | **.086** | **.262** | **.176** |
| Facebook identity salience/Feeling Towards Facebook | .662 | .656 | .006 |
| Facebook role enactment/Number of Friends | .308 | .394 | .086 |
| **Facebook role enactment/Feeling Towards Facebook** | **.208** | **.577** | **.369** |
| **Number of Friends/Feeling Towards Facebook** | **.057** | **.418** | **.361** |

### Table 2: Reconstructed Correlations of Path Model 2

| Variables | Reconstructed Corr. | Empirical Corr. | Difference |
|---|---|---|---|
| Facebook identity salience/Life Satisfaction | .157 | .137 | .020 |
| Facebook role enactment/Life Satisfaction | .083 | .076 | .007 |
| Feeling Towards Facebook/Life Satisfaction | .23 | .141 | .089 |
| Number of Friends/Life Satisfaction | .22 | .204 | .016 |
| Facebook identity salience/Facebook role enactment | .41 | .398 | .012 |
| Facebook identity salience/Number of Friends | .369 | .262 | .107 |
| Facebook identity salience/Feeling Towards Facebook | .697 | .656 | .041 |
| Facebook role enactment/Number of Friends | .390 | .394 | .004 |
| Facebook role enactment/Feeling Towards Facebook | .568 | .577 | .009 |
| Number of Friends/Feeling Towards Facebook | .519 | .418 | .101 |

**Table 3: Direct and Indirect Effects on Life Satisfaction**

| | **Direct Effect** | **Indirect Effect** |
|---|---|---|
| **Facebook identity salience/Life Satisfaction** | .102 | .05 |
| **Facebook role enactment/Life Satisfaction** | -.036 | .12 |
| **Number of Friends/Life Satisfaction** | .197 | .02 |
| **Affective Commitment/Life Satisfaction** | .000 | 0 |

**Table 4: Means and Standard Deviations of Variables by Gender (n = 2165)**

| | **Mean Total (SD)** | **Mean Male (SD)** | **Mean Female (SD)** | **T-Test** |
|---|---|---|---|---|
| **Number of Friends** | 6.00<br>(2.61) | 5.67***<br>(2.61) | 6.14<br>(2.59) | 3.99 |
| **Facebook role enactment** | 3.35<br>(1.29) | 3.12***<br>(1.22) | 3.48<br>(1.30) | 6.28 |
| **Facebook identity salience** | 4.25<br>(1.31) | 4.04***<br>(1.41) | 4.35<br>(1.26) | 5.04 |
| **Life Satisfaction** | 22.51<br>(4.76) | 22.08***<br>(5.01) | 22.91<br>(4.46) | 3.74 |
| **Feelings Towards Facebook** | 11.5<br>(3.99) | 10.77***<br>(3.93) | 11.96<br>(3.93) | 6.65 |

*** All differences between male and females are statistically significant at the *p* < .001 level

**Table 5: Linear Regression of Life Satisfaction with Facebook identity salience, Facebook role enactment and Number of Friends**

| | Minutes/Day (Normal) | Minutes/Day (Male) | Minutes/Day (Female) |
|---|---|---|---|
| Sig. | .125 | .894 | **.026** |
| Beta | -.036 | .005 | **-.064** |

# APPENDIX C

# AFFECTIVE COMMITMENT SCALE

## Affective Commitment Scale

| | **Cronbach's Alpha (.794)** |
|---|---|
| **I feel out of touch when I haven't logged onto Facebook for a day.** | **.704** |
| **I feel I am part of the Facebook community at the campus.** | **.703** |
| **I would be sorry if Facebook shut down.** | **.751** |