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HOW WHERE WE SPEAK AFFECTS WHAT WE SAY: A STUDY OF ONLINE PERSONALITIES AND SOCIAL MEDIA

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ABSTRACT

In the modern era, more communication is achieved online than ever before. Social media creates an environment where individuals can interact with one another outside of face-to-face settings. However, not all social media websites are created equally. Each social media platform creates a different environment for dialogue. This paper explores the differences between each social media platform and attempts to determine the differences between how its users interact.

This paper includes a research study in which the social media posts of a variety of subjects were analyzed. This analysis was conducted using well-known personality inventories from Raymond Cattell and Jennifer Aaker. Cattell's and Aaker's research was combined to form a personality inventory against which the posts of each subject were compared. The dominant personality trait displayed by each post was pooled for each platform and then an analysis was conducted to compare the results between different platforms. This information was used to answer the research question "Do social media users display different personalities across different social media platforms?" This research provides a foundation for future research into online personalities on social media.

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Chapter 1

Introduction

It would seem unlikely that anyone could have predicted the invention of the Internet. But that's just what novelist Jules Verne did in his 1863 novel *Paris in the 20th Century*. Verne predicted a future full of skyscrapers, gas-powered automobiles, and a worldwide communications network (Krystek 2002). Even when this worldwide communications network was born in the mid-eighties, none could predict the impact it would have on the world, specifically the impact it would have on human relationships.

We live in a world that does not rely upon face-to-face communication. We are constantly interacting with friends, family, acquaintances, and co-workers via email, text message, and social media. There now exist hundreds of platforms for communicating and expressing ideas over the Internet. Society is becoming so dependent on this form of communication that the average cell phone user checks his phone 150 times per day (Meeker and Wu 2013) Taking into consideration that the average American sleeps for eight and a half hours per night, that's once every six minutes (Huffington Post).

Studies have shown that communication is about so much more than just what we are saying. According to a recent Forbes article, 93% of communication is based upon nonverbal body language (Tardanico 2012). Communicating via social media strips away our ability to encode and send those nonverbal messages, essentially eliminating them from conversation. This elimination of nonverbal communication from online interactions may also affect the perception of personality on social media. That nonverbal communication contains clues to the speaker's personality. On social media, where things like body language and tone of voice are eliminated,

the receiver is left to decode that personality from written word alone. The question, then, is are we making up for the elimination of this nonverbal communication on social media in any way? And if so, how? The following paper explores these questions by discussing how we communicate via social media platforms.

Chapter 2

Social Media Platforms

The research in this paper focuses on five distinct social media platforms: Facebook,

Twitter, Instagram, Pinterest, and Tumblr. Information on the history, popularity, and structure of
each of these platforms is discussed below.

Facebook

In late 2003, Mark Zuckerberg started working on a social media website for Harvard students. He called it The Facebook (Carlson 2010). Now, eleven years later, Facebook is a household name. In 2013, Facebook had 757 million daily active users across the globe and 1.23 billion monthly active users. This means roughly 17% of the world's population logs on to Facebook at least once monthly ("Facebook Reports Fourth Quarter and Full Year 2013 Results"). The large population of Facebook users is strong evidence of the social impact the website has had. Facebook has become a standard method of communication, alongside face-to-face communication, telephone calls, and text messages.

Facebook provides several products hosted on its website. The first is Timeline. Timeline is a user profile that allows Facebook users to display information about themselves in a visual and organized way. Each Facebook user has a personal Timeline and can also view the Timeline of his or her Facebook friends. When a user chooses to post a piece of content on Facebook, that content shows up on that user's Timeline. This content also shows up on the News Feed of that user's friends. According to Facebook, the News Feed is "...a regularly updating list of stories from friends, pages, and other connections..." Each user's News Feed is customized based on

their interests and unique group of Facebook friends. The Timeline and the News Feed make up the general platform through which Facebook users interact with one another (Products).

In Facebook's mission statement, it is made clear that Facebook is intended to be a vehicle for engaging those with whom one has an existing relationship outside of social media.

The mission statement reads, "People use Facebook to stay connected with family and friends..."

("About Facebook"). In fact, if one were to receive a friend request from a person he or she does not know outside of Facebook, he or she is encouraged to report it to Facebook and to block that individual from sending another friend request. One of the subjects in this paper, Subject 18, confirmed this when asked why she uses Facebook. She said, "[Facebook is] more about inside jokes between friends, helping keep track of people, and maintaining relationships with family."

Subject 14 added, "Facebook isn't for news stories or political debates. Facebook is for funny little things and life events you want to share with the people you care about." The personal nature of Facebook is one of the characteristics that make it such a unique social media platform. Because Facebook is such a personal platform and the relationships are some precious to the user, it is likely that Facebook posts will be encouraging and warm, an assertion that it explored further in Chapter 5.

Twitter

Twitter is a social media platform that aims "to give everyone the power to create and share ideas and information instantly, without barriers." Unlike Facebook, Twitter only has one main product and functionality. Twitter users send out short messages using 140 characters or fewer. These messages, called "Tweets", may contain photos, videos, and links to outside sources. Twitter users can connect with one another by following each other or by using the "at" symbol (@) ("Company"). For example, when University of Missouri football player Michael

Sam announced he would become the first openly gay player in the National Football League, First Lady of the United States, Michelle Obama, sent him the following message over Twitter:

"You're an inspiration to us all, @MikeSamFootball. We couldn't be prouder of your courage both on and off the field. —mo" (Obama).

The use of the @ symbol indicated that the tweet was directed at Michael Sam and linked directly to his profile.

Twitter also has a Newsfeed-like homepage that features the tweets of every person the user chooses to connect to on Twitter. However, while the Facebook Newsfeed attempts to send the user only the most relevant information, the Twitter newsfeed send the user all of the tweets of the users he or she follows, in reverse chronological order of when they were posted ("Company").

In addition, Twitter pioneered the social media "hashtag". On Twitter, users utilize the hashtag symbol (#) to indicate they are discussing a particular topic. This then creates a link to other tweets worldwide that utilize the same hashtag. For example, in April 2013 when the Boston Marathon was attacked by an alleged terrorist, Twitter users began using "#BostonMarathon" to indicate any tweet regarding the attack. Clicking on this hashtag would direct any Twitter user to a reverse-chronological list of all tweets that used that hashtag. At that time, people all over the world were engaging in conversation about the bombing by using Twitter and hashtags (Rogers 2013).

According to Twitter's website, Twitter has 241 million monthly active users who send 500 million tweets per day. Twitter has also been successful internationally, as 77% of its users are located outside the United States. Over the past few years, Twitter has made only slight changes to its interface, keeping the general look and feel of the website the same. Instead, Twitter has focused on acquiring other companies, such as TweetDeck, and launching its own new initiatives, such as Vine, a mobile application similar to Instagram, but for short video clips

rather than photographs. Both of these are examples of other social media platforms that can be used in addition to Twitter ("Company").

Unlike Facebook, Twitter interactions are not confined by personal relationships. Twitter users are encouraged to connect with family and friends, but also to anyone with similar interests or even celebrities ("Company"). Twitter profiles have the option to be much more public than Facebook profiles. While all 100% of subjects in this paper with a Facebook account made that account private, only 23.5% of the subjects in this paper with a Twitter account made that account private. In addition, every subject in this paper with a Twitter account follows at least one celebrity on Twitter.

Subject 18 made a comment about the very public nature of Twitter. She said, "I perceive [Twitter] as much more public." She called Twitter a forum for "public commentary." Subject 14 describes Twitter as, "A place for me to share all my witty thoughts with the world." These differences between Facebook and Twitter are highlighted by the terms each platform uses to describe connections. The very-personal Facebook uses the term "Friends", while the more-public Twitter uses the term "Followers". "Friend" is a much more mutual term, implying equal benefit from the connection. However, "Follower" implies a hierarchy, meaning the Twitter relationship is not always reciprocated. In fact, if one user follows another on Twitter, that user does not automatically follow the other back. Twitter relationships can be one-sided, which further demonstrates the less-personal nature of the platform. Perhaps this impersonal attitude towards Twitter leads to more opinionated and top-of-the mind posts; ones that may not be as calculated as those shared on Facebook. This is explored further in Chapter 5.

Instagram

Instagram was launched in 2010 when former Google employee and Stanford graduate Kevin Systrom teamed up with fellow Stanford graduate Mike Krieger (Guynn 2012). Instagram is a platform that allows users to take photographs on their mobile phones, edit them using built-in filters, and post them online instantaneously. Once posted on the Instagram platform, they can be viewed by friends and family, who can then comment on them. Unlike Facebook and Twitter, which are primarily accessed via computer, Instagram is a mobile phone application. The majority of Instagram users access the application on their mobile phones rather than on their computers ("FAQ").

Instagram is one of the fastest growing social media platforms. It has been merely three years since its launch, and the platform already boasts 150 million monthly active users (Hof 2013). Instagram has grown so quickly, that it was recently acquired by Facebook for a record breaking \$1 billion. Rather than being absorbed into Facebook, Instagram is left to run by its own independent team and the application is left to mobile devices. Like Twitter, Instagram utilizes the hashtag ('#') and the at ('@') symbol as social vocabulary.

Instagram is a hybrid between Facebook and Twitter when discussing the nature of the connections. According to Instagram's mission statement, Instagram is a forum for sharing with friends ("FAQ"). However, Instagram has adopted the very hierarchical follower model that is used by Twitter. Because of that, users have the opportunity to follow celebrities or other special-interest accounts. When it comes to privacy, Instagram falls somewhere in between Facebook and Twitter. 43% of the subjects in this paper have private Instagram accounts. Perhaps the increase in privacy from Twitter to Instagram has to do with the fact that photographs are more personal in nature than the information regularly shared via Twitter. Another interesting feature of Instagram communication is the fact that there is no way to speak directly to another user on Instagram.

There is no direct message feature or any other tool one could use to interact without using a photograph as the primary medium of communication. All interactions on Instagram must occur either by posting a photograph or by commenting on another user's photograph. This type of restriction may reduce the overall frequency of posts on Instagram, perhaps leading to fewer spur-of-the moment and emotional postings, leading to more positive and well-calculated expressions.

Pinterest

Like Instagram, Pinterest is an incredibly visual social media website. However, unlike Instagram, Pinterest does not rely on the user to create original images. Pinterest is an online bulletin board. Users can post images of a variety of different things; for example, recipes, travel destinations, or clothing items. These images serve as reminders and may link to the source of the image or object. Users can then organize these posts (called "pins") into collections (called "boards"). Users can have many different boards, which can then be viewed by their followers ("About Pinterest").

Pinterest was founded by Ben Silbermann and Evan Sharp in March 2010. Now, Pinterest is a 140 employee operation out of San Francisco, California ("About Pinterest"). Semiocast, a company that provides social media insights, recently released a report claiming Pinterest has 70 million users, 20 million of which are located outside the United States (Semiocast). Pinterest is available online via computer or via application on a mobile device ("About Pinterest").

Because Pinterest is an online bulletin board meant for bookmarking inspiration, it has become the tool of choice for professionals in industries such as interior decorating, fashion, and design. While Pinterest users do share inspiration with their family and friends, *Time* magazine determined the most popular Pinterest users are actually food and fashion bloggers (TIME Staff 2013). Pinterest's unique concept has allowed it to become a popular social media tool for

professionals who may not experience the same mainstream success on websites such as Twitter and Facebook.

In addition to hosting unique subject matters, Pinterest boasts some interesting demographics as well. In fact, women are four times more likely than men to use Pinterest, and of those women, far more of them live in the suburbs than in a city ("User Demographic Highlights From 5 Major and Growing Social Networks."). But perhaps even more interesting than who uses Pinterest, is how people use Pinterest. According to data from Pinterest Insider, only 0.6% of time spent on Pinterest is spent commenting and only 15.5% of time is spent liking other user's posts ("How Do People Use Pinterest?"). That means that 83.9% of time on Pinterest is used in a way that does not involve interacting with other users. Subject 14 confirmed this. "I don't use Pinterest as social media, per se. It's more for ideas and crafts," she said. Perhaps this disregard for interaction on Pinterest affects the personalities that are displayed in some way, making them more inconsistent.

Tumblr

Tumblr is an online blogging website that allows users to post a variety of different types of content, including text, images, videos, and music. Unlike many of the other social media platforms, Tumblr is highly customizable. Users can customize the look and feel of their blog, including the colors, images, and fonts. Other Tumblr users can then either like or reblog (similar to a retweet) any post by another user. Tumblr posts also utilize the tagging feature (similar to a hashtag) to indicate the topics relevant to the post ("About Tumblr").

Tumblr was founded in 2007 by David Karp. Since then, Tumblr has grown to a team of 230 employees, operating out of its New York City headquarters. Tubmlr has over 170 million user-created blogs written in 13 different languages. Over fifty percent of Tumblr users are

located outside the United States. Tumblr focuses more on the content than the identity of its creator. Thus, unlike many other social media platforms, it is not unusual to remain anonymous on Tumblr ("About Tumblr").

It will be very interesting to see how anonymity affects online social behavior. It would seem likely that anonymity would reduce inhibitions and create a sense of confidence in the poster. A 2008 study from Physiological Reports, a psychological science journal, studied this exact phenomenon. This study revealed that anonymous users are more likely to violate the rules to earn a reward. This is what the researcher called "anti-social behavior" (Mapes 2008). Perhaps the subjects in this study will exhibit that anti-social behavior on Tumblr due to their anonymity.

Chapter 3

Literature Review

Existing Research on Social Media and Personality

The majority of research regarding online personality disclosure revolves around Facebook as the platform for social sharing. Perhaps the sheer volume of Facebook users attracts such a vast amount of research about how we use Facebook to communicate with one another. Between 2005 and 2011 alone, 412 scholarly articles were written about Facebook (Wilson, Gosling, and Graham 2012). One such article, "Internet social network communities: Risk taking, trust, and privacy concerns" by Joshua Fogel and Elham Nehmad, found that 78.4% of college students self-reported including information about their personality on their Facebook (Fogel and Nehmad 2008).

In 2009, Humboldt University professors Hanna Krasnova, Elena Kolesnikova, and Oliver Guenther wrote a paper entitled "It Won't Happen To Me': Self-Disclosure in Online Social Networks". In this paper, the researchers attempted to determine what motivates Facebook users to share personal information on Facebook. The researchers found that while privacy concerns exist among Facebook users, they are often too vague and intangible to impact their actions. Instead, self-disclosure is often motivated by the instant gratification achieved once information is posted to the website (Krasnova, Kolesnikova, and Guenther 2009). This paper provides an interesting insight into why we self-disclose on Facebook, but it will be incredibly interesting to determine how the type of content shared changes from platform to platform.

At the Ascilite Conference in Tasmania, Australia in 2011, Lisa Wise, Jason Skues, and Benedict Williams of the Swineburne University of Technology presented a paper about personality factors and how they influence Facebook use. This paper measured the type of

activities each participant was engaging in on Facebook and then measured each participant's true personality based on the Australian Personality Inventory. This study was able to link personality traits to certain Facebook activities (for example, the personality trait of 'neuroticism' is directly correlated with the Facebook action of blocking certain users from viewing your profile) (Wise, Skues, and Williams 2011). However, this paper will attempt to take this research a step further by asking the question "What personality traits do users display across various social media platforms and do they differ?" without any regard for the personality traits users display during face-to-face communication.

Perhaps the most relevant scholarly article to this research is one written by Adam W. Tyma and Lynette G. Leonard of the University of Nebraska at Omaha. Tyma and Leonard collaborated on a paper entitled "It's Not All Zeroes and Ones: Constructing Online Identity Assembly Theory". Tyma and Leonard discuss Online Identity through a communications discipline lens. Tyma and Leonard conclude that individual users are constructing multiple identities for themselves online simultaneously – each user thus being a "truly polysemic self". They assert that the unique thing about online identities in contrast with traditional identity formation is that online identities are archived – they can be revisited, reconstructed, and deleted at any given time. As a result of this more permanent and visible nature, Tyma and Leonard conclude that there is a very complex thought process that goes into the decision to publish information online. The authors named this process the Online Identity Assembly Theory (Tyma and Leonard 2011).

"Online identities need to be understood as continually changing representations, never fixed in one position, perpetually in a state of assembly."

(Tyma and Leonard 2011)

This representation of online identity construction is directly applicable to this research.

Tyma and Leonard make it very clear that social media users are constantly constructing and

reconstructing their online identities, expressing personality traits that may or may not reflect the personality traits they communicate in face-to-face interactions (Tyma and Leonard 2011). The research contained in this paper, however, aims to discover how the construction of online identities changes from platform to platform and will attempt to build upon Tyma and Leonard's theories by determining if the identities that are constructed vary between social media platforms.

Existing Personality Inventories

One of the most widely discussed personality inventories was developed by Raymond Cattell and published in 1949. Cattell's 16 Personality Factor theory aimed to develop a comprehensive list of personality adjectives and then narrow them down by eliminating redundancy. The result is a list of 16 adjectives that describe the traits that together make up the totality of human personality. According to Cattell, every person displays some level of each of these 16 traits. However, the degree to which an individual demonstrates each trait defines his or her personality (Cattell and Mead 2008).

The 16 Personality Factor theory is maintained and updated by the Institute for Personality and Ability Testing. The original 16 factors have been reformed over the years into the personality traits and descriptors listed in Table 3 - 1 (Cattell and Mead 2008).

Another well-established personality inventory is Jennifer Aaker's Five Dimensions of Brand Personality. Aaker compiled the traits that describe the personality of a brand as perceived by the consumer. According to Aaker, consumers perceive a brand as either Sincere, Excited, Competent, Sophisticated, or Rugged (Aaker 1997). While Aaker's research focuses mainly on the abstract concept of brand personality, her research is applicable to this paper. Brand personalities focus on *perception* rather than actual personality traits, as brands exist solely in the

mind of the consumer. Thus, brand personalities only exist to the extent they are perceived by consumers.

Table 3 - 1: Cattell's 16 Personality Factors

Trait	Descriptors		
Warmth	Warm-hearted, Caring, Attentive to Others		
Reasoning	Abstract, Bright, Fast-Learner		
Emotional Stability	Emotionally Stable, Adaptive, Mature		
Dominance	Dominant, Forceful, Assertive		
Liveliness	Enthusiastic, Animated, Spontaneous		
Rule-Consciousness	Rule-Conscious, Dutiful		
Social Boldness	Socially Bold, Venturesome, Thick-Skinned		
Sensitivity	Sensitive, Aesthetic, Tender-Minded		
Vigilance	Vigilant, Suspicious, Skeptical, Wary		
Abstractedness	Abstracted, Imaginative, Idea-Oriented		
Privateness	Private, Discreet, Non-Disclosing		
Apprehension	Apprehensive, Self-Doubting, Worried		
Openness to Change	Open to Change, Experimenting		
Self-Reliance	Self-Reliant, Solitary, Individualistic		
Perfectionism	Perfectionistic, Organized, Self-Disciplined		
Tension	Tense, High Energy, Driven		

(Cattell and Schuerger 2003, pg. 5)

The same could be said for online personalities. Unlike the true personalities every individual has, online personalities are crafted by individual, based on the information one

chooses to share (Tyma and Leonard 2011). Thus, the perception of online personalities is far more important in online identity research than is the underlying personality intended to be portrayed. We can apply the Transactional Model of Communication to this statement. The Transactional Model of Communication states that communication is a process that involves a source encoding a message and sending that message to a receiver. The receiver then decodes that message. Thus, the receiver may not decode the message in the same way that the source intended when he or she encoded it ("The Transactional Model of Communication").

This research will primarily emphasize how messages are decoded, rather than how they are encoded. That is, this will focus on the personality each post portrays, rather than the underlying personality of the source. In that sense, Jennifer Aaker's brand personality factor theory can be used to determine how social media messages are perceived across various social media platforms.

Chapter 4

Research Study

Goal

The goal of this research study is to determine if social media users share different types of information across different social media platforms. It is the position of this paper that each social media platform is a different online community and that each community leads its users to share information in a way that conforms to the norms of that community. As such, the hypothesis is that each platform will yield a unique group of personality traits that are most represented by its users. This research study aims to investigate that hypothesis by observing the posts of various social media users across platforms, using the method described below.

Method

In order to conduct this research, a sample of 21 social media users was obtained. This sample was obtained by inquiring of those with known social media profiles. Each of these subjects has an active profile on two or more of the social media platforms described in Chapter 2. These subjects are mostly college-aged individuals, with a few exceptions. In addition, they are mostly located on the east coast of the United States. While care was taken to ensure an equal representation of male and female subjects, the female to male ratio is still 2:1. Information about each subject and his/her social media profiles are listed in the tables below.

Table 4 - 1: Subject Demographics

Name	Age	Gender	Location	
Subject 1	21	Female	Pittsburgh, PA	
Subject 2	18	Female	Mahwah, NJ	
Subject 3	21	Female	East Greenwich, RI	
Subject 4	23	Female	Voorheesville, NY	
Subject 5	22	Female	Easton, PA	
Subject 6	19	Female	State College, PA	
Subject 7	20	Female	New Paltz, NY	
Subject 8	22	Female	River Vale, NJ	
Subject 9	61	Male	Abingdon, VA	
Subject 10	20	Female	Springfield, PA	
Subject 11	19	Female	Wycoff, NJ	
Subject 12	18	Male	Martinsburg, PA	
Subject 13	21	Female	Allison Park, PA	
Subject 14	23	Female	Reston, VA	
Subject 15	18	Male	Reston, VA	
Subject 16	20	Male	Reston, VA	
Subject 17	19	Male	Pittsburgh, PA	
Subject 18	24	Female	Arlington, VA	
Subject 19	22	Male	Levittown, PA	
Subject 20	22	Female	Teaneck, NJ	
Subject 21	20	Male	Washington, DC	

Table 4 - 2: Subject Social Media Profiles

Subject No.	Facebook	Twitter	Tumblr	Pinterest	Instagram
1	Yes	Yes	Yes	Yes	Yes
2	No	Yes	Yes	Yes	Yes
3	Yes	Yes	No	Yes	Yes
4	Yes	Yes	No	No	Yes
5	Yes	Yes	No	Yes	Yes
6	Yes	Yes	No	No	No
7	Yes	No	Yes	No	No
8	Yes	Yes	No	No	Yes
9	Yes	Yes	No	No	No
10	Yes	Yes	Yes	No	Yes
11	Yes	Yes	No	No	Yes
12	Yes	Yes	Yes	No	Yes
13	Yes	Yes	No	Yes	No
14	Yes	Yes	No	Yes	Yes
15	Yes	Yes	No	No	Yes
16	No	Yes	No	No	Yes
17	Yes	Yes	No	No	No
18	Yes	Yes	No	No	No
19	Yes	No	No	Yes	No
20	Yes	Yes	Yes	No	Yes
21	Yes	No	No	No	Yes

The subject's social media profiles were analyzed in mid-March 2014. The five most recent posts on each profile were collected and evaluated using the personality inventory listed in Table 4-3. Each post was then assigned a personality trait that best described the content and attitude of the post. After this process was completed, each platform was then analyzed based on the traits displayed most prevalently. This analysis was used to test the hypothesis that each social media platform invites different types of information to be shared.

Personality Inventory

In order to conduct this analysis, an applicable personality inventory needed to be developed. Cattell's 16 personality factors were used as the basis for this inventory. However, when Raymond Cattell designed his personality factors, he designed them to describe the true personalities each individual has. These factors were not designed to describe personality that is outwardly displayed. Furthermore, Cattell's inventory is definitely not meant to describe personalities displayed via written words or images. Since the personalities in this study are being measured on social media, Cattell's 16 factors had to be adjusted to make them applicable to social media. When nonverbal communication is eliminated from conversation as it is on social media, the range of personalities one can display becomes narrower. The lines between one personality factor and another may blur. For the purposes of this study, it is very important that the personality factors used are markedly distinct. If any two factors in the inventory cannibalize one another, the data may be skewed. As a result, three of the 16 factors, Openness to Change, Perfectionism, and Tension, were removed for the purposes of this study.

Openness to change was the first personality factor to be eliminated from the inventory for the purposes of this study. It was disregarded for a number of reasons. First, it is not displayed outwardly, but rather is displayed through an individual's actions. Thus, it is very difficult to

measure through written word alone. Secondly, it requires the context of the situation to be taken into account, something that may not be provided on social media. For example, one may display an openness to change by exhibiting a positive attitude in light of an unexpected situation.

However, unless that person then describes that situation online, his or her positive attitude may be confused for another personality factor such as warmth or liveliness. Thus, Openness to Change in not easily measurable on social media and must be disregarded.

Perfectionism was also disregarded during this study. According to Cattell's definition, to display Perfectionism means being organized and self-disciplined. These are traits that are difficult to assess on social media, where much of the organization is done for the user by the platform itself. While the overall organization of a subject's profile or the frequency with which he or she posts may display some level of perfectionism, this study focuses on each individual post as it stands alone. Thus, multiple posts cannot be taken together to examine this personality trait and it must be eliminated from the inventory for the purposes of this study.

The final of Cattell's factors to be eliminated for this study was Tension. This was a clear case of cannibalization due to the lack of nonverbal communication displayed over social media. In face-to-face communication, one would be able to easily distinguish between anger, worry, and drive based on the context clues provided by things such as facial expressions, volume, and tone of voice. However, on social media, these attitudes may be easily confused. For example, a post that displays a large number of exclamation points and a negative connotation could be either Apprehensive or Tense. This confusion needs to be eliminated in order to ensure accurate results in the analysis. To prevent the cannibalization between Tension and Apprehension, Tension was eliminated from the inventory.

In addition, it was found that many posts could not be described using Cattell's personality factors alone. As a result, some of Jennifer Aaker's brand perception descriptors were added to the inventory as well. Specifically, Aaker's traits of Excited, Rugged, and Sophisticated

were added for this study. Aaker's inventory describes brand perception, and since social media communication is a form of personal branding, it makes sense that there would be some overlap between Aaker's inventory and the personalities displayed on social media. Since Aaker's inventory is designed to describe observed personalities, it is very applicable to a measurement of personality displayed on social media.

Finally, during the course of this research, the inventory was adjusted to ensure every post could be analyzed properly. The traits of Nostalgic, Social Belonging, and Predictive were added to describe the posts that could not be adequately described by the existing traits in the inventory.

The trait of Social Belonging was added based on observation. During this study, it was found that while some posts are directed towards specific individuals, other posts display the user interacting and bonding with other individuals. These two types of posts are very different in nature and need their own factors in order to be classified properly. Thus, for the purposes of this study, Warmth is used to describe a general display of kindness, defined by Cattell as warmhearted, caring, and attentive to others. However, the term Social Belonging is used to describe posts that display the subject interacting with other members of his or her community. Social Belonging means that one is attempting to form bonds with others, regardless of what his or her purpose is for creating those bonds.

An interesting commonality between the social media posts analyzed is that there appeared to be a tendency to speak not only about the present, but also about the past and the future. This trend was apparent enough that two more factors needed to be added to the inventory. The factors of Nostalgic and Predictive were used to describe the posts in which users spoke longingly about the past or excitedly about the future respectively.

The result is the personality inventory used in this research study, detailed in Table 4-3 below.

Table 4 - 3: Personality Inventory Used

Personality Trait	Source
Warmth	Cattell
Reasoning	Cattell
Emotional Stability	Cattell
Dominance	Cattell
Liveliness	Cattell
Rule-Consciousness	Cattell
Social Boldness	Cattell
Sensitivity	Cattell
Vigilance	Cattell
Abstractedness	Cattell
Privateness	Cattell
Apprehension	Cattell
Self-Reliance	Cattell
Excited	Aaker
Sophisticated	Aaker
Rugged	Aaker
Nostalgic	Tarriff
Social Belonging	Tarriff
Predictive	Tarriff

Data Collection

For each subject, the five most recent posts were viewed on each social media platform. Depending on the frequency with which each subject uses his or her profiles, this data dates back anywhere from a few days before the data collection to a few months. For example, Subject 1 had a Facebook profile, a Twitter profile, an Instagram account, and a Tumblr. Thus, Subject 1 had 20 posts analyzed, five from each of these platforms. Each of these 20 posts was analyzed and assigned a personality trait that best describes the post as perceived. For every subject, the posts were analyzed singularly, with no other posts or trends taken into account. Tables containing the outcome of this analysis can be viewed in Appendix B. Also in Appendix B are tables that contain the frequency with which each personality factor appeared on each social media website, ranked from most frequent to least.

The results and implications of this data collection, as well as examples of this process, are discussed further in Chapter 5.

While this study originally intended to review Pinterest posts, it was discovered that Pinterest profiles do not lend themselves to this type of analysis for several reasons. First, unlike the other social media platforms, Pinterest does not list a user's posts in chronological order. It would be impossible to determine which of the user's posts were the five most recent. In addition, Pinterest users have the tendency not to post original captions. Many posts on Pinterest contain a caption that was not written by the user himself. It is nearly impossible to determine which of these captions are unique to the user and which are not. Thus, to take them into account when determining that user's personality would be improper.

Finally, even if these two flaws were to be ignored, the nature of the Pinterest posts analyzed in this study made it incredibly difficult to differentiate between the personalities they displayed. Nearly every post across every subject with a Pinterest profile fell into the same few

categories: photographs of food or clothing. These images, taken without any addition context, really could not express much of a personality. Without being able to characterize each post with one of the traits listed in Table 4-3, Pinterest posts could not be considered in this analysis.

Chapter 5

Results and Discussion

Facebook

Facebook is the platform that had the largest sample size. In total, 95 Facebook posts were analyzed. Each of these posts was assigned a personality trait that it best displayed. Table B – 1 in Appendix B lists the resulting traits by subject. Table B – 2 then lists the traits in order of frequency. Across the various ages, locations, and genders, three particular personality traits stood out. 21.05% of Facebook posts displayed Excitement and 18.9% of them displayed Warmth. The next most frequently displayed trait was Social Belonging, with 13.6% of total posts.

The most frequent trait displayed on Facebook was Excited, which was seen 20 times and was exhibited by 13 of the 19 subjects. According to Jennifer Aaker, a brand displays excitement by being daring, spirited, imaginative, or up-to-date (Aaker 1997). Below are some examples of posts in this study that displayed one or more of these characteristics.

Subject 3, Post 4:

"This video is going to be awesome! Looking great so far – check it out everyone!"

This post displays the subject's general excitement and enthusiasm for a particular video she is referencing. This post clearly displays Aaker's trait of spirited.

Subject 10, Post 3:

(In response to a new Lady Gaga music video): "Everything she does makes me fall in love with her all over again!! Gaga never ceases to amaze me! Fabulous!!:)"

Once again the subject is exhibiting excitement and is displaying herself as a spirited and up-to-date individual.

Subject 20, Post 2:

"I officially know how to make lumpia. Yess!"

This subject is displaying excitement over learning how to cook a new dish. This post shows the subject being daring by trying new things and being spirited.

The next most frequent personality trait displayed was Warmth, which was displayed in 18 posts across 12 of the 19 subjects. Cattell defines Warmth as warm-hearted, caring, and attentive to others. Some examples of the subjects displaying Warmth are listed below.

Subject 11, Post 4:

"Thanks so much for the birthday wishes everyone!"

In this post, the subject is simply expressing her gratitude to everyone who wished her a happy birthday, which displays the trait of warm-heartedness.

Subject 5, Post 4:

"The world needs to know: [Person's Name] sends the best snap chats."

This is an example of a subject paying a compliment to another person, a clear display of attention to others.

Subject 3, Post 2:

"SO UNBELIEVABLY PROUD OF MY BEST FRIEND [Person's

Name]!!!"

The subject is reaching out to another person in a caring way, displaying warm-heartedness, caring, and attention to others.

The third most frequent trait displayed on Facebook was Social Belonging, which is demonstrated when a subject posts about his or her relationship with others in a social setting. This personality trait was apparent in 13 posts across 8 of the 19 subjects. Some examples of Social Belonging are shown below:

Subject 6, Post 1:

[Accompanied by a picture of her Mock Trial team] "I had an amazing weekend competing with all of my teammates at ORCS! We may not have made it to Nationals, but we had a great time. I'm going to miss spending time with each and every one of you!"

This post is not directed at any one person, but rather is an expression of her emotions about an experience she had with a community she belongs to and the relationship she developed with the other community members.

Subject 12, Post 5:

[Accompanied by a picture of he and his friends] "These are my three best friends in the entire world."

In this case, the user is explaining his relationship with these friends to his other Facebook friends, and not to the friends in the photograph specifically. This conveys the relationship he has with these individuals.

Subject 15, Post 1:

"Welcoming back the warm weather with my girls [Person's Name] and [Person's Name]. I missed them!"

The subject is talking about spending time with and missing her friends, a comment on the relationship she is building with them outside of social media.

These results say a lot about the way Facebook is used. These traits convey positive connotations and positive images of the poster. Overall, Facebook users appeared to be expressing themselves as happy, likeable, and approachable. Personality traits that may be viewed as undesirable, such as Ruggedness and Dominance were displayed in fewer than 3% of posts.

Perhaps the overall positive attitude of the messages posted to Facebook is influenced by

the nature of Facebook relationships as explained in Chapter 2. In most cases, individuals have a relationship with their Facebook friends outside of the social network. Thus, they may refrain from posting about their apprehensions or fears because they do not want to have to deal with the consequences of relaying those worries to the people in their lives. Facebook is not a medium for venting – it is a medium for dialogue. Any expression of fear or sadness will be met with comments from one's Facebook friends, something not every Facebook user may want.

Twitter

83 Tweets were analyzed across 17 subjects in this study (Subject 9 had recently created a new Twitter account and thus only had 3 posts to analyze). Tables B – 3 and B – 4 in Appendix B list the results of this analysis. For Twitter, there were two particular traits that stood out. One of these traits was Excited, which appeared in 16 of the posts across 9 of the 17 subjects. Examples of posts that would be characterized as Excited are listed above in the discussion of Facebook. However, the most dominant trait displayed on Twitter amongst these subjects was Apprehension. Apprehension appeared 22 times and in the posts of 13 of the 17 subjects.

Cattell defines Apprehension as apprehensive, self-doubting, or worried. Some examples of the tweets that displayed Apprehension are described below.

Subject 1, Post 4:

"I don't understand this German film. How am I supposed to do this assignment? :("

This subject is expressing self-doubt about her ability to understand and complete an assignment. She is questioning her own abilities and exhibiting worry.

Subject 14, Post 2:

"You'd think I would understand Canadian geography by now but I just don't get it"

This subject is making a comment on expectations she has of herself that she has not met.

Once again, she is self-doubting and displaying Apprehension.

Subject 8, Post 5:

"What am I supposed to do with my life now that Mock Trial is over?

:("

The subject is creating a clear display of Apprehension in this post. He is expressing worry and doubt about this activity having concluded. The addition of the frowning emoticon adds to the feelings of sadness and self-doubt that the post conveys.

As demonstrated in the examples above, Twitter posts were full of Apprehension.

Apprehension does not convey a positive connotation. It conveys a message of indecisiveness and vulnerability, neither of which are necessarily attractive qualities.

Why do Twitter users appear so apprehensive? Well, perhaps this once again relates back to the structure of the communication on Twitter. Twitter posts are short bursts of emotion that are sent out to a number of followers, many of whom the user does not have a relationship with outside of the social network. Thus, the consequences of expressing these apprehensions would be smaller than on other platforms. In addition, the Twitter users that one connects with are called "followers". This term may give the impression that those individuals are more interested in

learning about the user's situations than being actively involved in them. Thus, Twitter users can share negative information without the fear of retaliation from their followers.

Instagram

70 Instagram posts were analyzed on the profiles of 14 subjects in this study. Tables B – 5 and B – 6 in Appendix B list the results of the Instagram analysis. This analysis was completed in an identical fashion to those conducted for Facebook and Twitter. In the case of Instagram, two personality factors were predominant, Warmth and Social Belonging. An explanation of Warmth and Social Belonging are listed in the Facebook section of this Chapter. However, Instagram posts are mainly photographs. Thus, posts displaying Warmth and Social Belonging will look quite different on Instagram than they do on Facebook.

Warmth was displayed in 13 of the 70 Instagram posts on the profiles of 9 of the 14 subjects in this study. An example of Warmth on Instagram can be seen in Subject 16's first post. Subject 16 posts a picture of two adorable puppies with a comment that reads "Took care of some stray dogs today". This post clearly emphasizes the subject's warm-heartedness, caring, and attention to the needs of others and is a great example of Warmth. Another great example of Warmth can be seen in Subject 20's second post, which is a photograph of a meal with a caption that reads "Took my sister for dinner today!" By doing this good deed for her sister, Subject 20 is displaying caring and attention to others.

Social Belonging is another trait that is easy to see on Instagram. It was displayed in 10 of the 70 posts on the profiles of 7 of the 14 posters. Social Belonging can be seen clearly in Subject 2's third post on Instagram. This picture does not have an accompanying caption, but is a photograph of the subject enjoying the warm weather outside with a group of her friends. This post exhibits the subject's social behaviors and relationships with the other individuals in the

photograph. Another example of Social Belonging is in Subject 8's second post. This is a photograph of the subject and three friends fulfilling a Penn State University tradition by eating "grilled stickies" at a restaurant downtown. This photograph is accompanied with the caption "#WeAre #PennState". While these hashtags may not appear significant to those outside of the Penn State community, those within the community recognize those as symbols of the community. This subject is building a relationship with the others in the photograph by embracing the culture of his community and is sharing that with those other individuals. This is an example of Social Belonging.

These are very similar results to those seen on Facebook for both of these traits. This is the generation of "selfies" (photographs one takes of his or her self, often times accompanied by other people). Since Instagram is a platform for sharing photographs, it is no surprise that such photographs appear often, making Social Belonging a frequently displayed trait. In addition to posting "selfies", many of the subjects in the research study posted images and captions about communities, organizations, and groups of people they belonged to, displaying further Social Belonging. Like Facebook, the predominantly displayed personality traits on Instagram convey positive connotations about the poster.

Tumblr

Tumblr proved to be nearly as difficult to analyze as Pinterest and for many of the same reasons. Often times on Tumblr, users simply re-post the images and captions of other Tumblr users. Many times, a Tumblr post includes both original and re-posted material. As a result the lines were often blurred between the subject's personality and the personality of the original poster and there is a lack of consistency in the results. The most frequently displayed trait on Tumblr was Sensitivity, at 16.7% of posters, followed by Social Boldness, at 13.3%.

These results may be explained by the anonymity on Tumblr. When asked about Tumblr, Subject 2 in this study made the claim, "There are no rules on Tumblr. You just post what you want." This may be what led the Tumblr users in this study to display such a variety of personalities. Between the 30 posts, there were over 14 different personality traits displayed. We may be able to draw conclusions about the varied nature of Tumblr use from this data. However, further research is required to make any connection as to why Tumblr users post in this manner. Opportunities for this research are discussed further in Chapter 6.

Less Popular Personality Factors

Many of the personality traits listed in Table 4 – 3 appeared very infrequently amongst the subjects pooled in this study. For example, the trait Privateness only appeared once. Subject 5 tweeted a link to a news article titled "New app helps you avoid friends and exes." Other than that one instance, none of the subjects displayed Privateness on any of the social media platforms. Perhaps the nature of social media and tendency to want to share makes "Private Social Media" a bit of an oxymoron. It is also possible that the context of each posting (ie. the frequency or the length of the post) conveys some level of Privateness, but such contexts were not taken into consideration in this study.

Another infrequent trait was Rugged, which was taken from Jennifer Aaker's brand personalities. Rugged only appeared once per platform. Some examples of Rugged are shown below.

Subject 7, Facebook Post 3:

"Well, of all the random places I've pulled an all-nighter on this campus, the couch in Willard is a new first. And a lot more comfortable than napping across three rolling chairs in the office"

Subject 7's third Facebook post displays her Ruggedness because she is discussing sleeping in an unfamiliar environment and is demonstrating her ability to adapt to what other's might consider an uncomfortable situation.

Subject 5, Instagram Post 5:

[Image of a tent in the woods] "Camping Date"

This post takes Aaker's definition of Rugged quite literally: this post shows the poster camping and enjoying the wilderness.

In this analysis, Rugged was interpreted in two ways. A post was considered Rugged if it referenced activities such as camping or fishing. Furthermore, any post that demonstrated that the poster is willing to get his or her hands dirty or to sacrifice his or her comfort was described as Rugged. It is no surprise that this trait did not show up as frequently as some of the others, considering the geography of the subjects. Perhaps Rugged would be more apparent in subjects who live in geographies where the environment is more a part of one's culture. For example, one would expect to see more Ruggedness in the posts of a subject from Montana or Washington State. The subjects in this study are located closer to major cities, where environmentalism is not as prevalent.

Even just taking these two examples into account, there is a lot to learn from the personality traits we do not share online. Future research can be done to determine why we do not share these traits online. Is it just that we do not possess these characteristics? Do the platforms not encourage such sharing? Or, it is a more calculated decision on the poster's part not to share certain characteristics?

Comparing Across the Platforms

In order to understand the results of this research, it is important to compare the social media platforms. There are several questions that must be asked. Are different personality traits displayed between the different platforms? Does each platform have one personality trait that stands out? And if so, how do the dominant personality traits compare across the platforms? These questions were answers by the results discussed above.

Perhaps the most intriguing comparison is Facebook and Twitter. The stark contrast demonstrated by this data between Facebook and Twitter is remarkable. The overwhelmingly dominant personality trait displayed on Twitter was Apprehension, with 26.5% of posts. This is a stark contrast to Facebook. While Facebook and Twitter have the trait of Excited in common, Apprehension only appears in 6.3% of Facebook posts. This is a difference worth exploring. As described earlier, this difference may be explained the differences in structure between Facebook and Twitter. The more hierarchical and public nature of Twitter may lead users to express their fears and doubts more so than they would on Facebook.

Another incredible difference between these two platforms is in the frequency with which Social Belonging was exhibited. In Facebook, 13.6% of posts exhibited Social Belonging. On Twitter, only one post displayed Social Belonging – that's only 1.2% of posts. This may be explained by the term one uses to describe his or her connections on Facebook and Twitter. On

Facebook, one shares information with his Facebook "Friends". Thus, one may be more compelled to post about his relationships with those friends. However, on Twitter, one shares information with his Twitter "Followers". This is a more individualistic term and may reduce the tendency to post about one's relationships with others. Twitter posts tend to be more about the poster than about his or her friends.

This research was inspired by the notion that "Facebook is where you lie to your friends and Twitter is where you tell the truth to strangers", a phrase that has circulated around the Internet in recent years. The data analysis in this research study seems to support that claim in some way. It is clear that the type of information communicated on Facebook is quite different from the type communicated on Twitter. However, as to which of these is the lie and which is the truth, no claim can be made. Further research that takes into consideration the subject's true personality will need to be conducted to confirm this phrase.

It is also important to note the similarities between the results for Facebook and Instagram. Facebook and Instagram had the same top three traits; Warmth, Excited, and Social Belonging. This may indicate that Facebook and Instagram are used for similar purposes. However, because Instagram is a photo-sharing platform, certain traits appeared more frequently on Instagram than on Facebook. Specifically, the trait of Sophisticated was more prevalent on Instagram than on Facebook. Perhaps Sophistication is a trait more easily conveyed visually by posting images of luxury. Instagram users in this study posted a variety of photos that conveyed their sophistication, such as images of their lavish vacations and their exciting travels. These results definitely comment on the nature of a photograph as a means of displaying personality and the nature of Instagram as a means for conveying such traits.

Tumblr really stands out from the other platforms in this study. Unlike Facebook,

Twitter, and Instagram, there is no apparent structure in the personalities displayed on Tumblr.

No personalities really stood out. In addition, if one were to look at each individual subject in

Table B - 7, he would see that it was rare that any one subject showed any consistency between the personalities of his posts. This lack of structure may have been the result of the anonymity and impersonal nature of Tumblr. These results make it apparent that Tumblr does not invite the same consistency as the other platforms do. Further research has the opportunity to explore this topic more, uncovering why this may be.

Because of the differences between the platforms noted above, one can conclude that this research confirms the research hypothesis that social media users display different personality traits on different social media platforms.

Limitations

Like all research studies, this one is subject to potential bias. The subjects used in this analysis were mostly college-aged individuals living along the east coast of the United States. This subjects the study to both geographical and age bias amongst the respondents. This sample had a tendency to exhibit Warmth, Social Belonging, and Apprehension across the four social media platforms exhibited. Both Social Belonging and Apprehension may be examples of age-bias taking effect. College-aged individuals are at a crossroads in their lives. They are becoming a part of a new community and meeting new people. This context may explain why this sample overwhelmingly showed Social Belonging on their social media profiles. In addition, college students eventually need to graduate and make big life decisions such as where to work and where to live. If the subjects in this study were faced with these decisions, they may have more Apprehension in their lives, thus increasing the amount of Apprehension they display online. As a result of this bias, these results may only be applicable to that specific class of individuals and may not be applicable to social media users as a whole.

In addition, many of the subjects used in this analysis were known outside of the research study by the researcher. This may have caused there to be some Researcher's Bias. However, the consistency between the results for known-subjects and unknown-subjects leads to a confidence that Researcher's Bias did not play a significant role in this study.

Chapter 6

Future Research Opportunities

There is a lot of opportunity here for further research. This study has only just scratched the surface of online personality research. As social media becomes a more integral part of our lives, more and more uses develop for research such as this. It will be incredibly interesting to see what research on social media and personalities is conducted in the future.

Confirmatory Studies

There are opportunities for this study to be replicated on a larger scale. One could conduct a similar study using a broader range of subjects of different ages and geographies to see if similar results are attained. This study will eliminate much of the bias discussed in the Limitations section above. It will determine if the traits of Warmth, Social Belonging, and Apprehension are the most common personality traits expressed across all social media users or whether they are just the traits of choice for this sample.

It would be fascinating to see how the age of the sample effects the results. For example, one of the exciting personality factors discussed in Chapter 4 was Nostalgic. Perhaps Nostalgia was not displayed amongst this younger sample because they are at the age where the present and the future are so much more exciting than the past. However, adding older subjects to the sample may increase the appearance of Nostalgia on social media. We can also look at how other factors such as geography or frequency of posting affects the results of this study, using the same inventory.

Using Other Personality Inventories

In addition to expanding the sample, this study could be duplicated using a completely different personality inventory to confirm or challenge these results. The personality traits that come up most frequently using a different inventory may be drastically different than the results generated in this sample. For example, a different inventory may reveal personalities on Facebook that have a negative connotation. If, however, the results are similar to the results of this study, more concrete conclusions about social media and attitudes may be drawn.

Using Other Social Media Platforms

This study chose to focus on only five platforms; Facebook, Twitter, Instagram, Tumblr, and Pinterest. However, there are other social media platform this research did not have the opportunity to explore. One such platform, Reddit, would undoubtedly provide intriguing insights. Reddit is a social discussion website where users can strike a dialogue about a variety of topics. However, Reddit posting is done completely anonymously. Anonymity on Reddit is even greater than anonymity on Tumblr. In fact, if a Reddit user reveals personal identification information, his or her post is often deleted by the moderators of the website. It would be really interesting to replicate this study using Reddit profiles to determine if the anonymity of the post influences the type of personality that is displayed. Based on the varied results found in this study for Tumblr, a semi-anonymous platform, it would seem likely that Reddit users would display a wide range of personalities. Based on the results for Twitter, it would also seem likely that Reddit users would post more negative content because they do not have to deal with the repercussion of anyone connecting that information to them as people. Furthermore, it would be interesting to

conduct a study to see how Reddit personalities compare to the subject's true personalities, outside of social media.

Further Research on Tumblr and Pinterest

It was very hard to draw any concrete conclusions about Tumblr and Pinterest using the method in this study. Perhaps there is a better way to study how social media users express their personalities on these platforms. This research may include ethnography and interviews of the subjects as they use Tumblr and Pinterest. Tumblr and Pinterest inherently invite less commentary than other platforms do. Thus, observing and interacting with Tumblr and Pinterst users may be necessary to truly understand what types of personalities they are expressing with each post.

When asked why she uses Tumblr, Subject 2 responded by saying, "I use Tumblr to admire things I can probably never have. Really good chocolate cookies that probably look better in the picture than in person? It's there. Pictures of your dream wedding? It's there. The photoshoot spread of Kate Upton? It's there. Basically it's a blog of my favorite things, regardless of whether they are realistic." This single statement from one individual alone tells us more about Tumblr use than this study was able to reveal. This is a perfect example of how in-depth interviews can be used to confirm or expand upon the results of this study, especially when it comes to the more eluding platforms such as Tumblr and Pinterest.

Correlation between Online Personalities and True Personalities

Finally, without knowing how the results of this study relate to the true personalities of the subjects, one may be left asking "So what?" The most exciting prospective study that can be conducted in the future is one that aims to correlate the results of this study with some true personality of each subject. Perhaps a study would reveal that while subjects are Warm on Facebook and Apprehensive on Twitter, their true personalities lie somewhere in the middle. Or maybe it will be discovered that people appear so Warm on Facebook because they are so nervous about how they are perceived that they are carefully crafting these images of themselves online. Perhaps the Warmth and Social Belonging on Facebook stems from Apprehension in the real world.

With Twitter, it may be quite the opposite. Maybe Twitter users are self-centered in their day-to-day lives and only reveal their apprehensions online to be reassured and admired by their followers. Perhaps Twitter is creating a lust for attention. The truth is, this study cannot tell us why users express the personalities that they do on social media; it can only tell us what those personalities are. Only a more in-depth study involving a measurement of both online and true personalities can reveal the significance of these findings.

Appendix A

Social Media Platforms: Further Information

Table A - 1: Social Media Platforms at a Glance

Platform	Number of Users	Submission Types	Access Points
Facebook	757 Million Daily Active Users	Posts (can include text, images, or links to outside sources)	Via Computer or Mobile Application
Twitter	241 Million Monthly Active Users	Tweets (can include text up to 140 characters in length, images, or links to outside sources)	Via Computer or Mobile Application
Instagram	150 Million Monthly Active Users	Images with optional caption and comments on other images	Primarily via mobile application, some functionality via computer
Pinterest	70 Million Users	Images with optional captions, comments on other images, and links to outside sources	Via Computer or Mobile Application
Tumblr	170 Million Blogs	Blog posts (can include text, images, videos, music, or links to outside sources) and comments on other posts	Via Computer or Mobile Application

Table A - 2: Glossary of Social Vocabulary

Term	Definition
Timeline	A user profile that allows Facebook users to display information about themselves in a visual and organized way
News Feed	A regularly updating list of stories from friends, pages, and other connections
Like	A feature of Facebook, Instagram, and Tumblr that allows a user to acknowledge another's post positively
Tweet	A post on Twitter that must be 140 characters or fewer in length
@ (at)	An indication that a post on Twitter or Instagram is directed at another user
# (hashtag)	An indication that a particular post on Twitter or Instagram is related to a particular topic
Tag	An indication that a particular post on Tumblr is related to a particular topic
Retweet	A method for a Twitter user to re-post another user's tweet to his or her own Twitter page
Favorite	A method for a Twitter user to acknowledge another's post positively
Reblog	A method for a Tumblr user to re-post another user's blog post to his or her own Tumblr blog
Pin	A post on Pinterest
Board	A particular collection of pins on Pinterest, usually organized based on some similarity between the pins

Appendix B

Research Study Results

Table B - 1: Facebook Personalities by Subject

Subject	Trait	Trait	Trait	Trait	Trait
	Post 1	Post 2	Post 3	Post 4	Post 5
Subject 1	Nostalgic	Dominance	Social	Social	Warmth
			Boldness	Belonging	
Subject 3	Excited	Warmth	Nostalgic	Excited	Social
					Belonging
Subject 4	Excited	Self-Reliance	Nostalgic	Excited	Abstractedness
Subject 5	Vigilance	Self-Reliance	Apprehension	Warmth	Social Boldness
Subject 6	Social	Social	Social	Self-Reliance	Excited
3	Belonging	Belonging	Boldness		
Subject 7	Vigilance	Self-Reliance	Rugged	Reasoning	Apprehension
Subject 8	Excited	Emotional Stability	Excited	Abstractedness	Liveliness
Subject 9	Rule-	Sensitivity	Apprehension	Vigilance	Excited
3	Consciousness	j			
Subject 10	Liveliness	Dominance	Excited	Excited	Nostalgic
Subject 11	Warmth	Excited	Nostalgic	Warmth	Nostalgic
Subject 12	Excited	Warmth	Warmth	Social	Social
		,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Belonging	Belonging
Subject 13	Social	Social	Warmth	Warmth	Social
.	Belonging	Belonging			Belonging
Subject 14	Excited	Warmth	Reasoning	Warmth	Warmth
Subject 15	Social Belonging	Warmth	Nostalgic	Social Belonging	Warmth
Subject 17	Excited	Excited	Warmth	Excited	Sensitivity
Subject 18	Social Belonging	Sophisticated	Self-Reliance	Excited	Warmth
Subject 19	Sensitivity	Liveliness	Reasoning	Warmth	Reasoning
Subject 20	Self-Reliance	Excited	Social Boldness	Excited	Apprehension
Subject 21	Apprehension	Excited	Social Belonging	Apprehension	Warmth

Table B - 2: Facebook Personalities by Frequency

Personality Trait	Frequency (out of 95 posts)
Excited	20
Warmth	18
Social Belonging	13
Nostalgic	7
Self-Reliance	6
Apprehension	6
Reasoning	4
Social Boldness	4
Vigilance	3
Liveliness	3
Sensitivity	3
Abstractedness	2
Dominance	2
Emotional Stability	1
Rule-Consciousness	1
Rugged	1
Sophisticated	1

Table B - 3: Twitter Personalities by Subject

Subject	Trait Post 1	Trait Post 2	Trait Post 3	Trait Post 4	Trait Post 5
Subject 1	Reasoning	Vigilance	Warmth	Apprehension	Sophisticated
Subject 2	Rule- Consciousness	Excited	Predictive	Apprehension	Warmth
Subject 3	Self-Reliance	Reasoning	Apprehension	Apprehension	Reasoning
Subject 4	Emotional Stability	Dominance	Vigilance	Apprehension	Apprehension
Subject 5	Vigilance	Sensitivity	Privateness	Reasoning	Nostalgia
Subject 6	Sophisticated	Vigilance	Dominance	Apprehension	Apprehension
Subject 8	Sophisticated	Liveliness	Apprehension	Dominance	Apprehension
Subject 9	Sensitivity	Excited	Excited	-	-
Subject 10	Excited	Self-Reliance	Self-Reliance	Reasoning	Self-Reliance
Subject 11	Excited	Warmth	Apprehension	Apprehension	Excited
Subject 12	Reasoning	Dominance	Apprehension	Rugged	Apprehension
Subject 13	Apprehension	Apprehension	Excited	Self-Reliance	Social Belonging
Subject 14	Apprehension	Apprehension	Dominance	Apprehension	Vigilance
Subject 15	Sophisticated	Social Boldness	Excited	Predictive	Excited
Subject 17	Excited	Apprehension	Excited	Excited	Abstractedness
Subject 18	Apprehension	Excited	Excited	Social Boldness	Sensitivity
Subject 20	Warmth	Apprehension	Excited	Vigilance	Excited

Table B - 4: Twitter Personalities by Frequency

Personality Trait	Frequency (out of 83 posts)
Apprehension	22
Excited	16
Vigilance	6
Reasoning	6
Self-Reliance	5
Dominance	5
Warmth	4
Sophisticated	4
Sensitivity	3
Predictive	2
Social Boldness	2
Rule-Consciousness	1
Emotional Stability	1
Privateness	1
Liveliness	1
Rugged	1
Social Belonging	1
Nostalgia	1
Abstractedness	1

Table B - 5: Instagram Personalities by Subject

Subject	Trait	Trait	Trait	Trait	Trait
	Post 1	Post 2	Post 3	Post 4	Post 5
Subject 1	Social Boldness	Abstractedness	Warmth	Excited	Social Belonging
Subject 2	Apprehension	Sophisticated	Social Belonging	Sophisticated	Liveliness
Subject 3	Excited	Apprehension	Social Boldness	Nostalgic	Warmth
Subject 4	Sophisticated	Reasoning	Excited	Nostalgic	Social Belonging
Subject 5	Nostalgic	Nostalgic	Emotional Stability	Nostalgic	Rugged
Subject 8	Social Belonging	Social Belonging	Liveliness	Social Belonging	Predictive
Subject 10	Vigilance	Self-Reliance	Warmth	Self-Reliance	Self-Reliance
Subject 11	Sophisticated	Social Boldness	Excited	Sophisticated	Warmth
Subject 12	Social Belonging	Warmth	Warmth	Social Belonging	Dominance
Subject 14	Social Belonging	Warmth	Warmth	Reasoning	Nostalgic
Subject 15	Dominance	Excited	Social Boldness	Liveliness	Apprehension
Subject 16	Warmth	Self-Reliance	Emotional Stability	Apprehension	Rule- Consciousness
Subject 20	Warmth	Warmth	Excited	Dominance	Excited
Subject 21	Warmth	Social Belonging	Warmth	Apprehension	Apprehension

Table B - 6: Instagram Personalities by Frequency

Personality Trait	Frequency (out of 70 posts)
Warmth	13
Social Belonging	10
Excited	7
Apprehension	6
Nostalgic	6
Sophisticated	5
Self-Reliance	4
Social Boldness	4
Dominance	3
Liveliness	3
Emotional Stability	2
Reasoning	2
Abstractedness	1
Vigilance	1
Rugged	1
Predictive	1
Rule-Consciousness	1

Table B - 7: Tumblr Personalities by Subject

Subject	Trait Post 1	Trait Post 2	Trait Post 3	Trait Post 4	Trait Post 5
Subject 1	Liveliness	Self-Reliance	Warmth	Sensitivity	Sensitivity
Subject 2	Liveliness	Social Boldness	Social Belonging	Apprehension	Social Belonging
Subject 7	Reasoning	Emotional Stability	Nostalgic	Self-Reliance	Sensitivity
Subject 10	Sensitivity	Social Belonging	Apprehension	Social Boldness	Warmth
Subject 12	Reasoning	Rugged	Excited	Sensitivity	Dominance
Subject 20	Reasoning	Social Boldness	Excited	Rule- Consciousness	Social Boldness

Table B - 8: Tumblr Personalities by Frequency

Personality Trait	Frequency (out of 30 posts)
Sensitivity	5
Social Boldness	4
Social Belonging	3
Reasoning	3
Self-Reliance	2
Warmth	2
Apprehension	2
Excited	2
Liveliness	2
Emotional Stability	1
Rugged	1
Nostalgic	1
Rule-Consciousness	1
Dominance	1

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