WHAT'S NEW?:

A DIFFERENT WAY TO DESCRIBE INNOVATORS

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by

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The undersigned, appointed by the dean of the Graduate School, have examined the thesis entitled

WHAT'S NEW?: A DIFFERENT WAY TO DESCRIBE INNOVATORS

presented by Amy M. Roberts,

a candidate for the degree of master of arts,

and hereby certify that, in their opinion, it is worthy of acceptance.

Professor Cynthia Frisby

Professor Shelly Rodgers

Professor Melissa Click

Professor Brad Best

Dedication -

Love to my mom and dad who always root for me no matter what! I am hoping that on my graduation day, they will make an exception (just once!) and root for Mizzou just as much as they do for Georgia!

"People, let me tell you 'bout my best friend" - my dog, Kermit, who sat next to me for every paper-writing and discussion board session over the past three plus years, and "helped" me with all the hard questions. However, he was silent on anything relating to SPSS software, which was not surprising.

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WHAT'S NEW?:
A DIFFERENT WAY TO DESCRIBE INNOVATORS

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ABSTRACT

Innovators enjoy seeking out new experiences and new products to try next. They enable the process of the diffusion of information, by launching new ideas into a social system (Rogers, 2003, p. 283). This research tested a component of the theory of diffusion of innovations by comparing specific personality characteristics, including risk-taking behavior, novelty-seeking, need for uniqueness, and cosmopoliteness, plus social networking sites usage and habits for qualities associated with innovativeness, which is defined by Goldsmith and Hofacker's 1991 domain-specific innovativeness scale. Survey results and subsequent data analysis were then used to create a profile of an innovator, which includes the personality traits of novelty-seeking behavior and cosmopoliteness, and higher levels of engagement and social interaction and content sharing on social networking sites. This research contributes to the literature of studies which combine personal innovativeness and social networking site use.

CHAPTER 1 - INTRODUCTION

> I can't believe it! I tweeted about a band today I seriously thought was brand-new, and Kevin said he bought their EP on vinyl two months ago when he was in L.A.," he says. His friend replies, "It's the same thing with Jennifer! I just saw on Instagram that she posted a picture back in August of the new boots I just saw today that I want! I mean, her profile says, 'Always on the hunt for what's new!' How do they find out about all this stuff before we do? What are we missing?!

While hypothetical, this kind of conversation surely takes place a lot these days - that it always seems like certain people are aware of the newest, coolest products and ideas before everyone else in the crowd! "Kevin" and "Jennifer" could be examples of the type of people diffusion scholars call innovators. Innovators are relatively rare, and make up only 2.5 percent of the population (Rogers, 2003, p. 280-281). Marketing and advertising executives, media organizations, and scholars would love to know how to identify these people and just how they find out about new things first.

Purpose Statement

The purpose of this research is a test of a component of the theory of diffusion of innovations by comparing personality characteristics and social networking sites usage and habits for qualities associated with innovativeness, which is defined by Goldsmith

and Hofacker's 1991 domain-specific innovativeness scale. Questions about the subjects' personalities, along with questions about how they spend their time on social networking sites and the ways in which they share information with their peers, are considered. The results will then be used to create an overall profile of an innovator, which will then help to shed light on the most important part of the process of diffusion - the beginning.

Contribution to Existing Literature

There is already a good deal of research about innovativeness, but researchers have not been able to agree on the best way to identify it as a specific trait. Several personality characteristics, including the ones examined in this proposed research: risk-taking behavior, novelty-seeking, need for uniqueness, and cosmopoliteness, have been described individually by researchers as good ways to accomplish this, but a compilation of all these traits into one profile has not been seen. Also, there were only a handful of studies seen which combined personal innovativeness and social networking site use, and none was seen which used social networking site activity as a way to identify innovators. (Grewal, Mehta & Kardes, 2000; Pagani, Hofacker, & Goldsmith, 2011; Ross, Orr, Sisic, Arseneault, Simmering, & Orr, 2009; Correa, Hinsley, & de Zúñiga, 2011, p. 250). Since communication through social media has dramatically increased in the past few years, it is unusual that more research is not readily available comparing these two topics. Therefore, a profile combining motivating personality traits and social networking site use as ways to identify innovators contributes to the existing literature of studies on personal innovativeness.

Being able to describe innovators, as a comparison to non-innovators, would help media organizations and marketers target them specifically, as a function of market

segmentation (Rodgers, Chen, Duffy, & Fleming, 2007, p. 105-106). They then could use this information to decide which specific areas of coverage need boosting and also to improve access to all users. This would also be helpful for the marketing of new journalistic publications and features. If innovators and their tastes are more easily identified, then media organizations can create content tailored just to them, then they would share with others what they have discovered (Slater, 1996, p. 268).

Overview of the Rest of the Thesis

A literature review follows, which notes past research and discusses the previous inability of researchers to agree on the best definition of innovativeness. Personality traits which have been shown separately in the past to relate to innovative behavior are discussed. Then, the concepts of usage habits on social networking sites as potential descriptors are introduced. Finally, details of a survey to test the hypotheses and subsequent data analysis of the findings are discussed.

CHAPTER 2 - LITERATURE REVIEW

The Theory of Diffusion of Innovations

According to the theory of diffusion of innovations, diffusion takes place as information about new ideas or products (innovations) is communicated through various means to "members of a social system" (Rogers, 2003, p. 5). The idea does not have to be new, technically, but just new to the recipient of the information. The communication is ongoing, through word of mouth, in person and electronically.

Dr. Everett Rogers provided the greatest contributions to the body of research on diffusion. In his 1962 book, *Diffusion of Innovations*, Rogers divided up the members of the population who adopted a certain innovation into five groups, according to time of adoption. Innovators, who start the information dissemination process, are in Rogers's first group, and are the people who seem to be ahead of the trends. Other classifications are early adopters, early majority, late majority, and laggards. The categories are distributed according to a Bell curve, where the 50th percentile falls in between the early and late majority (2003, p. 280-281).

Innovators share the quality of innovativeness, which Rogers defined as "the degree to which an individual or other unit of adoption is relatively earlier in adopting new ideas than the other members of a system" (Rogers, 2003, p. 22). A person has more or less innovativeness than others; it is a "continuous variable" (Rogers, 2003, p. 280).

Disagreement about the Definition of Innovativeness

While Rogers's definition only includes the aspect of timing, Midgley and Dowling took their description a step further. They added the condition that the innovator decides to make the adoption on his or her own, not from a recommendation, where innovativeness is "the degree to which an individual is receptive to new ideas and makes innovation decisions independently of the communicated experience of others" (1978, p. 235).

Researchers also have not been able to agree on the methods used to operationalize the definition of an innovator. Kohn and Jacoby wrote that the majority of researchers studying innovativeness operationalized its definition in one of three ways (1973, p. 1). Rogers used the "time of adoption" method, based on when the person acquires a particular item (2003, p. 272-273). The cross-section method asks subjects if they owned the certain item at a particular point in time, such as a few weeks or months after it is released. The third method is an inventory of items which are considered to be new or trendy at the time of the research (Midgley & Dowling, 1978, p. 230).

Another approach has been the consideration of how an innovator processes new ideas, whether internally, or through external action. There are two main types of innovativeness which have been studied. Innate innovativeness is described as an internal instinct to adopt new trends, and is a distinct quality a person either possesses or does not. Im, Bayus, and Mason found only a weak link between the trait of innate innovativeness and new product adoption behavior (2003, p. 69). Actualized innovativeness is described as taking specific action to be able to identify new products and ideas to experience (Midgley & Dowling, 1978, p. 235).

No one can be an expert on every topic at once, much less be an innovator in all of them at the same time. Instead, people tend to know more about the handful of specific topics in which they are interested, and then they actively seek out information about them - and the newest products and ideas. So, researchers have had more success when testing for validity of domain-specific innovativeness, a type of actualized innovativeness, where the person is innovative in one area in which they know a lot about, such as agriculture, electronics, cars, or fashion (Goldsmith, 2001). Goldsmith and Hofacker used a self-report scale to measure innovativeness in the specific areas of rock music and fashion, with positive results (1991, p. 219; Goldsmith & Flynn, 1992, p. 46). They used a 6 point Likert-type scale with three positive and three negative statements, and it was found to be "reliable and valid" when tested (1991, p. 209). This scale has become the model for domain-specific innovativeness research.

Demographics and Socioeconomic Characteristics as Descriptors

Typically, collected data about demographic and socioeconomic characteristics provides a great deal of information to researchers, especially in the area of market segmentation. Historically, however, tests by researchers for connections between personal innovativeness and demographic and social characteristics, such as age, education, and income, have yielded varying results. Dupagne and Driscoll counted 15 of 19 innovativeness studies which found a negative relationship between age and adoption of new technological innovations, where younger people were more likely to purchase the new products. Then, they found 10 of 17 studies which showed a positive relationship between education and adoption of new (at the time) technology, including the Internet, VCRs, cell phones, and online shopping (2010, p. 219) - this could mean the opposite,

where a higher level of education would signify an older subject. The differences in the results can be explained in this way: younger people seem to be more likely to adopt new products and ideas, and older people typically make more money, and would have more disposable income with which to experiment, and then do not suffer too much if an item does not work out (Boone, 1970, p. 138).

A New Approach: Describing Innovators through Certain Personality Traits

When it was discovered that demographics and social statuses "reveal little" about the motivations of innovative consumers (Goldsmith, 2001, p. 150), researchers began looking for other ways to define innovators. After some trial and error (Pizam compared 37 different psychological characteristics with innovativeness, and found significance with only 16 of them (1972, p. 209)), several other shared characteristics were found which help describe innovators' personalities, and could help explain their behavior and motivations, including risk-taking and venturesomeness, novelty-seeking, the need for uniqueness, and cosmopoliteness. These traits serve as motivating forces for a person to display innovative behavior. They spur a consumer into action, to try out new things, such as a new product or a new website. The expected results of this study were that innovative people would exhibit these personality traits to a greater degree than non-innovative people.

Risk-Taking Behavior (Venturesomeness) as a Descriptor

Venturesomeness describes the "obsession" innovators have with seeking out new ways to collect new information, specifically, information that leads them to new experiences, expanded knowledge, and products (Rogers, 2003, p. 282). Innovators are

unafraid to branch out of their comfort zone of their current social networks in order to retrieve this information. A person who engages in this behavior is more likely to take chances on an uncertain outcome, like being willing to take a chance on something new, not worrying as much about wasting time or money as a regular person would if the results do not pay off. This extends to trying a new product, and not feeling as much regret as others might if it does not work out. Innovators must take these chances as the first people to adopt a new product, chances later adopters do not have to face (Boone, 1970, p. 138). While risk-taking behavior seemed to be the most common trait studied in conjunction with innovativeness, often in a combination with another trait, the actual term "venturesomeness" was primarily seen in Rogers's work (2003, p. 282).

Based on the literature, this hypothesis is proposed:

H1-- Innovators are more likely to show a higher degree of risk-taking/venturesomeness than non-innovators.

Novelty-Seeking Behavior as a Descriptor

A person who exhibits novelty-seeking behavior is dissatisfied with the status quo, and is always on the look-out for the newest items. Novelty-seeking can be a generalized trait, such as preferring products that are new [to them], and also a domain-specific trait. For example, people called "gadget lovers" are really interested in technology, and make it a goal to be the first one in their peer group to obtain a new product in that genre, like the newest version of a cell phone (Bruner & Kumar, 2007, p. 330). However, these same people may not have as much of a desire to experience the newest of the new in other areas, such as trendy clothing styles, or buzzworthy books.

Novelty-seeking behavior by consumers is a first step toward actualized innovativeness - going out and getting a new product (Manning, Bearden, & Madden, 1995, p. 341). Hirschman researched novelty-seeking behavior, in terms of seeking out new products or new versions of existing products to own, and found a relationship to innovative behavior (1980, p, 285). Novelty-seeking behavior has also positively predicted computer and technology-related product adoption- this also provides support for domain-specific innovativeness (Chau & Hui, 1998, p. 229; Lin, 2006, p. 233, 235). Based on the literature, this hypothesis is proposed:

H2-- Innovators are more likely to have a greater need for novelty-seeking than non-innovators.

The Need for Uniqueness as a Descriptor

The need for uniqueness is the desire to be the only person in one's peer group with a certain item. This desire causes a person to feel like he or she must continually look for new items as other people catch on to current trends, things the uniqueness-seeker is familiar with or already owns. People with a need for uniqueness are able to increase their self-esteem when they acquire an item [or find out about something new] that is identified by others as outside the norm (Burns & Krampf, 1992, p. 230). This makes them feel special, by "developing and enhancing one's self-image and social image" (Tian, Bearden, & Hunter, 2001, p. 50).

Uniqueness-seeking behavior is complemented by the need for non-conformity. (Tian et al, 2001, p. 52). Rogers wrote that innovators are "likely to be viewed as 'deviants' by their peers and by themselves" (1963, p. 254). While this label seems

extreme today, it could describe how innovators typically search for new products and ideas on their own, rather than assimilating with others who might adopt a trend later. Being on the periphery of more than one social group would allow an innovator to introduce new products and ideas in one group that he or she discovers from interactions with members of a different group.

Based on the literature, this hypothesis is proposed:

H3-- Innovators are more likely to have a greater need to feel and be unique than non-innovators.

Cosmopoliteness as a Descriptor

Cosmopoliteness is described as having knowledge and an appreciation of different cultures, especially international ones (Jeffres, Atkin, Bracken, & Neuendorf, 2004). Cosmopolitan people like to travel and explore (even if it is just barely outside the social group); it is where they come across new ideas, experiences, and products to try. A cosmopolitan person enjoys displaying and telling others about items he or she has purchased during the course of their travels.

In their landmark 1943 study, "*The Diffusion of Hybrid Seed Corn in Two Iowa Communities,*" sociologists Bryce Ryan and Neal C. Gross noticed that the Iowa farmers who adopted more quickly a new hybrid of corn seed traveled to Des Moines, the largest nearby city, more often than their neighbors (Rogers, 2003, p. 290). Venturing outside their immediate social circle made it more likely that they would be exposed to new information that they then could share with others. Jeffres et al. found a positive connection between cosmopoliteness and Internet use, where during the course of their

web surfing, the subjects looked for both curated and unrestricted information in order to broaden their horizons (2004).

Based on the literature, this hypothesis is proposed:

H4-- Innovators are more likely to have a higher level of cosmopoliteness than non-innovators.

Social Networking Site Usage and Habits as Descriptors

An additional way to describe innovators is to analyze the ways they communicate and share new information with peers online through social networking sites. So far, however, academic database and Internet search results have indicated there is little current research comparing personal innovativeness and media use, especially social networking sites. The most comprehensive research seen on this topic is an article which covers innovativeness and media use in general, but it is more than 40 years old, pre-dating the Internet (Summers, 1972)!

Why Test on Social Networking Sites?

There is a good chance the information being shared by innovators is being disseminated online, through social media, on sites like Facebook, Twitter, Instagram, or Pinterest - in the form of photos, news, ideas, and their experiences and opinions about new products. According to the Pew Internet and American Life Project, as of January 2014, about 74 percent of online adults over 18 in the United States were using social networking sites in 2014 (Social Networking Fact Sheet, 2014). Users actually doubled between 2008 and 2011 (Hampton, Goulet, Rainie, & Purcell, 2011, p. 3). Facebook is

the most popular social networking site, with 71 percent of online adults as account-holders (Duggan, Ellison, Lampe, Lenhart, & Madden, 2015).

The almost three-quarters of the adult population online who belong to these sites are also spending some serious time using them. The average user spends 37 minutes a day on social media sites (Adler, 2013), visiting sites multiple times, like Facebook (45% of users), Instagram (32%), and Twitter (22%) (Duggan et al., 2015). In 2014, fifty-two percent of users were active members of more than one social networking site at a time, which was up ten percent over 2013 (Duggan et al., 2015).

Studying innovators' social networking site habits also can help researchers analyze popular media content more thoroughly, as they strive to understand how a trend crosses over into viral status, and how these trends can be identified and even forecasted.

More Frequent Social Networking Site Use as a Descriptor

Summers included all the main forms of mass media available in 1972 when he hypothesized that a potential adopter of a product would be influenced both by his or her "predisposition to innovate within the relevant product category and the amount and types of promotion to which he or she is exposed," where the categories for the advertisements included things like packaged food, cleaning products, women's clothes, and appliances. The media types were radio, television, magazines, and newspapers (1972, p. 44). His results found support that innovators are exposed to mass media more often and to a greater degree than non-innovators. Magazine readership and exposure held the strongest connection to the innovators of all of the forms of media (1972, p. 48).

More recent research has examined the potential relationship between early adopters of communication technology products and their mass media use, with varying

results. Early adoption of products has been a way some researchers have described innovativeness, specifically domain-specific innovativeness - adoption in one product area (Goldsmith & Hofacker, 2001). Shu-Chu Sarrina noted several examples where adopters were "heavier users of mass media than non-adopters" (2004, p. 468), but these and other examples seen had only partially successful results, where either only one form of media usage was greater, including where heavier television watching was tied to earlier multimedia cable adoption (Lin & Jeffres, 1998, p. 346), or where only part of the hypothesis was supported - mass media use and adoption of audio information services were related, but mass media use and adoption of fax services were not (Neuendorf, Atkin, & Jeffres, 2009, p. 89). Dupagne found that "newspaper use was positively related to HDTV awareness, frequency of movie going was positively related to HDTV interest, and the amount of sports viewing on television was directly related to the intent to purchase an HDTV television (1999, p. 45). These differences in results between media formats could be explained by the appropriateness of the comparison of the media format to the proposed innovation.

Rogers generalized in 2003 that "earlier adopters have greater exposure to mass media communication channels than do later adopters" (p. 291). So, if innovators are exposed to mass media more often and to a greater degree, this could also extend to the use of social networking sites. More visits to social networking sites, more often, would equal more time spent browsing the content. Even more time can be spent, depending on the user's depth of engagement, or, how many page clicks per site are received. The more exposure to content on social networking sites a person receives, the more exposure he or

she receives to information about newly shared content and also new and unusual products to buy, which is then shared with others.

Openness to Experience as a Predictor of Frequent Social Media Use

Correa et al. hypothesized that "people who are more open to new experiences than others use social networking sites more frequently" (2011, p. 249). This was supported by their results, and a possible explanation could be the constant flow of new information available and the availability of new social networking sites to join. Correa et al. also concluded that these frequent users were more "innovative and creative" (p. 250). Similar results were found for Facebook users specifically (Ross et al., 2009). Novelty-seeking behavior, one of the personality characteristics explored as a dependent variable in this research, could be described as a subset of the characteristic of being open to new experiences, where some people who are open to new things might not be actively seeking them out!

Based on the literature, this four-part hypothesis is proposed:

H5a-- Innovators report that they spend more time using social networking sites than non-innovators do, based on number of days a week they visited the site.

H5b-- Innovators report that they spend more time using social networking sites than non-innovators do, based on frequency of site visits.

H5c-- Innovators report that they spend more time using social networking sites than non-innovators do, based on length of site visits.

H5d-- Innovators report a deeper level of engagement through successive page views per browsing session than non-innovators do.

Higher Levels of Sharing and Interaction as Descriptors

Grewal et al. found that that personal attitudes about social identity help people "associate non-social items, such as products, with social beings (people)" and "play an important role in personal innovativeness and opinion leadership" (2000, p. 233, 247). So, possessions, including both products and ideas, help create and maintain a person's self-image. Innovations, especially super-new items, are "exciting and trend-setting," prime targets for boosting a person's social identity (2000, p. 235). Since someone who is an innovator is always on the lookout for the latest items, he or she would take special enjoyment in posting photos or updating his or her status online whenever a noteworthy discovery had been made and acquired, thereby raising his or her self-esteem.

A positive connection was found between innovativeness and both active and passive involvement in online social networking, where active use equals sharing and interacting, and passive use equals browsing and information gathering. "Higher levels of self-identity and social identity expressiveness seem to lead to greater active use of these networks and have a weak or non-existent impact on passive browsing" (Pagani et al., 2011, p. 450-451).

Based on the literature, these hypotheses are proposed:

H6a-- Innovators report that they interact online with others more often than non-innovators do.

H6b-- Innovators report that they share more items online with others than non-innovators do.

Summary

Innovators enjoy seeking out information about new experiences and new products to try next. Once they discover the new items, they then share them with their peers - by playing "gatekeeping roles in the flow of new ideas into a system," and launching the process of the diffusion of innovations" (Rogers, 2003, p. 283). If a product or idea is going to be successful, it takes someone like an innovator to spread the word, or else many people may never hear about it. This is one reason why innovators are attractive to advertisers and marketers, plus anyone who wants to communicate strategically with others.

Identifying innovators has proven to be a tough task, however. Over time, there has been a lot of disagreement about the best way to accomplish this, since there has been "no real consensus" as to what innovativeness actually is (Roehrich, 2004, p. 671). Researchers have tried many approaches with varying results: using demographics and socioeconomic characteristics to identify innovators, focusing on how to operationalize innovativeness in research methods, and then by concentrating on innovativeness itself as a quality, whether a person is just innovative all the time, or their innovativeness is specific to certain types of products.

Leung noted that while many previous researchers focused on external characteristics, this concentration "offered little insight into the internal needs of adopters," and "motivational influences have been ignored or under-studied" (1998, p. 781). Few, if any researchers seem to have asked - what's going on in these innovators' minds (Leung, 1998, p. 781)? Could the answer lie in a shared personality trait? Researchers have had some success with testing for a relationship between

innovativeness and single personality traits, but no combination of risk-taking/venturesomeness, novelty-seeking behavior, need for uniqueness, and cosmopoliteness has been seen.

No matter what innovators' motivational forces end up being, there is also the matter of researching their methods of communication. Rogers generalized in 2003 that innovators are exposed more often to "mass media communication channels...and interpersonal communication channels" than non-innovators (p. 291) - which translates to more overall exposure to information sources about new products or ideas. How does this transfer over to the use of social networking sites: more time spent, via more pages browsed or more pictures posted? Do more Facebook friends or Twitter followers lead to more chances to browse their pages for ideas and more chances to share discoveries? The research that follows sought to answer these questions about the whys and hows of being an innovator.

CHAPTER 3 - METHODS AND DESIGN

An online survey was used to test these hypotheses. It was divided into three sections with three separate topics: innovativeness, personality characteristics, and social networking site usage and habits. The survey only took a few minutes to complete. The full list of questions for the survey is included as Appendix A.

Survey Description

The first part of the survey identifies innovators in the group through their answers to questions similar to those on the innovativeness scale created by Goldsmith and Hofacker (1991) and their scores on an inventory of viral videos popular on social networking sites. The second part of the survey covers the personality characteristics: risk-taking/venturesomeness, novelty-seeking behavior, need for uniqueness, and cosmopoliteness. The third part covers social networking site usage and habits.

Variables

The independent variable is the quality of innovativeness. The dependent variables are the survey results showing higher degrees of certain personality characteristics, social networking site use and routines, and media communication behaviors. The control and intervening variable was defined as the group of subjects whose survey results showed a lower degree of innovativeness. Subjects were divided into two groups depending on the results of the innovativeness scale: innovators and non-

innovators. Survey results for the personality traits and the social networking site use were then compared to test results for the two groups in order to determine any connections.

Participants

First, subjects were recruited using some of the social networking sites being discussed, such as Facebook and Twitter, through the use of a scripted profile post which linked to the survey hosted by "Survey Monkey.com." After a week or so, too few subjects had participated for a large enough sample size, so "Plan B" was implemented - using the recruiting/host website "Mechanical Turk" from Amazon.com. "MTurk" is a platform where users are paid for small tasks they perform on the website. It has become popular in recent years for recruiting subjects for academic survey research (Berinsky, Huber, & Lenz, 2013, p. 351). The average payment per task on MTurk is as little as a few cents. The amounts the Berinsky team paid in 2013 ranged between 15 and 50 cents per subject for surveys which took a couple of minutes each (p. 353). Subjects here were paid 40 cents for a completed survey.

Sampling procedures

The sample size was determined according to guidelines from "*Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*," by John W. Creswell, which was the textbook for Missouri's thesis preparation seminar, and an online sample size calculator from "Survey System.com." Using a confidence interval of +/- 4, a confidence level for this margin of error at 95 percent (Creswell, 2014, p. 159), and leaving the "population" field blank generated a sample size of 600. Reducing the confidence interval

to +/-3 increased the size to 1,067, and going down to +/-2 would require 2,401 people (Creative Research Systems, n.d.).

The numbers used for the samples in the research discussed in the literature review ranged from about 117 to 976 respondents (Goldsmith, 2001; Summers, 1972, p. 44); two of the studies were around 600 (Dupagne, 1999, p. 41; Dickerson & Gentry, 1983, p. 229). However, since Rogers noted that innovators are relatively rare, at 2.5 percent of the population (2003, p. 280-281), the number of subjects recruited for the sample needed to be as large as possible. The goal for the final number for the sample was to receive 600 usable, complete samples. (It was hoped that if there were more respondents recruited than expected, this number could have been increased in order to reduce the confidence interval, but after two weeks, it was time to move on once the initial goal was achieved! Budgetary restrictions were a primary factor in this decision.)

Survey Quality Control Measures

As a measure of quality control, several people were asked to evaluate the survey for consistency, ease of completion, and timing (Wimmer & Dominick, 2011, p. 200). They provided feedback whether the questions were easy enough to understand and if the formatting made sense. The wording of a few questions in the personality traits section was changed as a result.

Survey Section #1: Innovativeness

Since domain-specific innovativeness has been the type of innovativeness that has shown the highest levels of reliability and validity over other types, this was the area that was tested (Goldsmith, 2001). Goldsmith and Hofacker used rock music and fashion as

their specific products, since the subjects were college students (1991, p. 211). Since the subjects' demographics and socioeconomic characteristics varied, a more general topic to use for the inventory was chosen, recent viral videos, items a person who uses social media a lot would have been likely to have seen.

A. Attitudes about Social Networking Sites

The survey began with a few questions to gauge interest and membership in social networking sites (and were used to provide descriptive statistics). Six questions about attitudes were next, which were similar to the questions from Goldsmith and Hofacker's 1991 consumer innovativeness scale (p. 212). Subjects were asked to answer on a 5-point Likert scale, from strongly disagree (1) to strongly agree (5).

B. Inventory Gauging Familiarity with Viral Videos

Next up on the survey was a list of questions with examples of viral videos. The list was compiled from several sources: the 2014 "Top Ten Trending Videos" list from YouTube, the YouTube Trends Dashboard for March 8, 2015 (the day before the survey was published online), videos featured on CNN.com's home page on March 8th, 2015, an Ice Bucket Challenge photo (something that most people would be familiar with), and a test photo (explained next). Using a cross-section method, subjects answered yes or no if they had viewed this item online. This method was more reliable than the "time of adoption" method, since it eliminated a subject's inability to remember exactly when they first became aware of it (Midgley & Dowling, 1978, p. 231**).**

This part of the survey adopted an interesting technique Summers used in his research, adding a made-up item on the list subjects were asked to evaluate. This helped

to exclude subjects who mark "yes" for every answer. Only two percent of Summers's subjects claimed they owned the fake item on the survey, and the item was not included in the scoring (1972, p. 44). The fake item used here was a personal iPhone photo of a grasshopper at Atlanta's Turner Field, so there was no way the subjects could have seen it!

Survey Section #2: Personality Characteristics

The second area of the survey covered the four personality traits, with five questions on each one: risk-taking/venturesomeness, novelty-seeking, the need for uniqueness, and cosmopoliteness. Questions from three of the four sub-sections were pulled from articles containing scales on those topics: novelty-seeking (Manning et al., 1995, p. 334), need for uniqueness (Tian et al., 2001, p. 55), and cosmopoliteness (Dupagne & Driscoll, 2010, p. 221). The questions for the risk-taking/venturesomeness section were original. Participants were asked to select a point on a 5-point Likert scale, ranging from strongly disagree (1) to strongly agree (5), for how well they felt each statement described them.

Survey Section #3: Social Networking Site Usage and Habits

The third section of the survey was divided into two parts: time spent and communication habits. First, subjects were asked a series of questions about their experiences with social networking sites, questions relating to time spent and usage routines. The second section included questions about communication habits and frequency of various activities performed via social networking sites, such as updating one's status, "liking" or marking an item as a "favorite," commenting on another person's

post, sharing a story via social media on one's own profile page, sharing a story on another person's profile, recommending content to others, participating in private or direct messaging, or one-on-one or group chatting. The inclusion and wording of many of the questions and answer choices were based on those from the survey, "*SNS and Facebook Survey 2010*," from the Pew Internet and American Life Project report, "*Social Networking Sites and Our Lives*" (Hampton et al., 2011, p. 61-85).

Self-Reporting of Social Networking Site Use by Subjects

There have been issues expressed in the past with the reliability of subjects' self-reporting their activities on social networking sites. However, it would be difficult, if not impossible, to be able to observe each individual subject's social networking site use over multiple sites without agreements and specific data from the sites, plus in-person or electronic monitoring. In the Pew report, "*Why Facebook Users Get More Than They Give*," Hampton, Goulet, Marlow, and Rainie compared subjects' self-reported usage data with their actual usage data provided by Facebook, and declared the results "close to actual usage" (2012, p. 18). Some discrepancies arose for subjects who used Facebook less often, where they overstated their time spent, but actual data and self-reporting for frequent users matched (2012, p. 18).

Self-reported data is not perfect for recording social networking site use, but "diffusion research relies on survey methodology and self-reported data" (Dupagne & Driscoll, 2010, p. 227). Therefore, it was decided that a survey was the best method to use in order to illustrate multiple concepts while using the same subjects.

Expected Results

Results were expected to show that people in the innovators group were more likely to display the tested personality traits, use social networking sites more often than the non-innovators group, and interact more often with peers online than people who were not considered to be innovators.

Data Collection

The survey remained online on the host website, Survey Monkey.com, for about two weeks, long enough to get enough usable responses for the minimum required sample size of 600. Subjects were recruited via Facebook, Twitter, email, and Amazon's MTurk. A total of 700 responses were collected. Ninety-six submissions were rejected, because of duplication, significant drop-off, or where the subject answered positively on every question on the viral video inventory. (There were two of those.) The final sample consisted of 604 complete, usable responses. Microsoft Excel and IBM SPSS 22.0 were used to perform the data analysis.

Demographics of the Sample

Of the 700 original responses on the survey, 209 came from social media and word of mouth recruiting, and 491 were from MTurk. Of 600 responses to the gender question, there were 313 women (52.2%) and 287 men (47.8%). Three hundred eighty-seven (64.3%) respondents were between 21 and 39, 6 (1%) were 20 or younger, and 102 (17%) were 50 and older. Four hundred sixty-one respondents (76.7%) had either received a bachelor's or master's degree. There were originally seven categories for the race question (as written by Survey Monkey.com), but these were condensed to four: white, black/African-American, Asian, and other. Three hundred and nine (51.7%) were

white, and 229 were Asian (38.3). There were fewer people who were black than expected, 27 (4.5%), or another race, 33 (5.5%). Ethnicity was not included. One reason for the greater than expected headcount of Asians could be because of the high percentage of Indians who use Amazon's MTurk. Forty-six percent of MTurk users in 2010 were from India (Ross et al., 2010).

CHAPTER 4 - RESULTS

Answers to the innovativeness section of the survey were reviewed first. Each subject's answers were converted to values, and their points received were added together to create the "total innovativeness score" (Goldsmith & Flynn, 1992, p. 46). Since there were six questions, all with answers from 1 to 5, all possible scores ranged between 6 and 30 (Goldsmith & Hofacker, 1991, p. 213). The higher the score, the more innovative the person was considered to be.

After removing the grasshopper item from the list, results on the viral videos inventory (one point per answer of "Have viewed") were correlated with the scores on the innovativeness scale (Goldsmith & Hofacker, 1991, p. 212). SPSS was used to calculate Pearson's correlation coefficient to compare the innovativeness scale scores and the viral video inventory totals, which were found to be positively correlated and significant at the <.01 level, $r(602) = .44$, $p < .01$ (2-tailed).

Using a similar method as Summers, the innovativeness scores were divided into two groups, in order "to provide innovator vs. non-innovator dichotomies" (1972, p. 44). The original goal was to have respondents who had scores in the top 2.5 percent as the innovators group, and the rest would be called non-innovators (Rogers, 2003, p. 280-281). The closest possible cut-off point, where 21 equaled N, ended up being about 3.5% of the total.

However, there were concerns that N was too small for the first group. Summers corrected this issue by combining respondents who fell into Rogers's innovators and early adopters categories into one group, because too few people could "restrict the number too severely in order to provide a strong test between innovativeness and media exposure" (Summers, 1972, p. 45). The cut-off point for my new innovators group [that included early adopters too] was 16%, where N equaled 97.

Personality Characteristics

Using SPSS, an independent samples t-test was performed on the total innovativeness scores, where innovativeness is used as the independent variable, and the personality traits as the dependent variables. This is similar to the method Dupagne and Driscoll used in their 2010 research on innovativeness and HDTV adopters (p. 223). Twenty original, separate variables, one for each survey question, were grouped by their corresponding personality traits into four new variables for the t-test, where the computed means for each question were averaged. The hypotheses which were supported by significant differences in the calculated means of each of the dependent variables were used to construct an overall descriptive profile of an innovator. See Table 1.

H1-- Innovators are more likely to show a higher degree of risk-taking/venturesomeness than non-innovators.

With equal variances assumed, an independent samples t-test did not find a statistically significant difference in the combined scores on the risk-taking and

venturesomeness section of the survey between innovators and non-innovators, where t(589) = -.82, and p = .410. (See Table 1.)

H2-- Innovators are more likely to have a greater need for novelty-seeking than non-innovators.

With equal variances assumed, an independent samples t-test found a statistically significant difference in combined scores on the novelty-seeking behavior section of the survey between innovators and non-innovators, t(583) = 5.36, p = <.001. (See Table 1.)

H3-- Innovators are more likely to have a higher need to feel and be unique than non-innovators.

With equal variances assumed, a statistically significant difference was not found in the combined scores on the uniqueness-seeking section of the survey between innovators and non-innovators, t(580) = .61, p = .541. (See Table 1.)

H4-- Innovators are more likely to have a higher level of cosmopoliteness than non-innovators.

With equal variances not assumed, a statistically significant difference was found in the combined scores on the cosmopoliteness section of the survey between innovators and non-innovators, t(125.08) = 4.04, p = <.001. (See Table 1.)

Table 1- Independent Samples t-test of Personality Traits

	Innovators		Non-Innovators				
Personality Traits	*M*	*SD*	*M*	*SD*	*df*	*t*	*p*
Risk-Taking	3.08	.48	3.12	.4	589	-.82	.410
Novelty-Seeking	3.64	.89	3.20	.69	583	5.36	< .001*
Need for Uniqueness	3.04	.87	3.00	.66	580	.61	.541
Cosmopoliteness	4.36	.80	4.01	.69	125.08	4.04	< .001*

* p <.001

Social Networking Sites Usage

Since the answer choices on the social networking sites usage and habits section of the test were formatted according to ranges instead of equal units, as the personality sections were, a non-parametric-type test, the legacy version of the Mann-Whitney U test, was used to analyze the responses on SPSS instead of a t-test. According to a guide on the Laerd Statistics home page, it is necessary to use this type of test since these variables are "not normally distributed" and are "ordinal rather than continuous" (2015). For more information, see Table 2.

H5a-- Innovators report that they spend more time using social networking sites than non-innovators do, based on the number of days a week they visited the site.

A Mann-Whitney U test was performed to determine if there were differences in the number of days a week social networking sites were used, between innovators (mean

rank = 346.67) and non-innovators (mean rank = 292.82). A statistically significant difference between the groups was found, U = 20,111.00, and p = .001. (See Table 2.)

H5b-- Innovators report that they spend more time using social networking sites than non-innovators do, based on frequency of site visits.

For this one, a Mann-Whitney U test was performed to determine if there were differences in the number of times subjects checked their favorite social networking site on a typical day that they logged in, between innovators (mean rank = 365.56) and non-innovators (mean rank = 283.30). A statistically significant difference between the groups was found, U = 17,047, and p = <.001. (See Table 2.)

H5c-- Innovators report that they spend more time using social networking sites than non-innovators do, based on length of site visits.

A newly created variable, AVGLONG, was used to combine two original variables (AVERAGE and LONG), representing questions on the survey about the length of the subjects' average visits to social networking sites and then what they considered a "long" visit was for them. A Mann-Whitney U test was performed to determine if there were differences in the lengths of site visits, between innovators (mean rank = 317.06) and non-innovators (mean rank = 290.21). While the mean rank for innovators was higher, a statistically significant difference between the groups was not found, U = 21,097, and p = .157. (See Table 2.)

H5d-- Innovators report a deeper level of engagement through successive page views per browsing session than non-innovators do.

A newly created variable WALLVL was used to combine two original variables (WALLS and LEVELS) representing questions on the survey about how many pages, walls, or profiles clicked on during a typical visit, and how many clicks "away" they got from their landing page. A Mann-Whitney U test was performed to determine if there were differences in levels of "visit depth," between innovators (mean rank = 310.91) and non-innovators (mean rank = 254.34). A statistically significant difference between the groups was found, U = 15,443, and p = .001. (See Table 2.)

H6a-- Innovators report that they interact online with others more often than non-innovators do.

A newly created variable, INTERACT, was used to combine seven original variables (UPDATE, LIKE, LIKEPUB, COMMENT, MSG, CHAT, NEWITEM) representing questions on the survey about updating one's status, liking items on one's own page, commenting on others' posts, messaging and chatting with others, and discovering new items to purchase on one's news feed, from either ads or branded content. A Mann-Whitney U test was performed to determine if there were differences in the combined ranks of variables relating to interaction-related behaviors between innovators (mean rank = 301.92) and non-innovators (mean rank = 244.21). A statistically significant difference between the groups was found, U = 13,981.5, and p = .001. (See Table 2.)

H6b-- Innovators report that they share more items online with others than non-innovators do.

A newly created variable, SHARE, was used to combine seven original variables (LINKOWN, LINKOTH, LIKEOTH, PHOTO, FOTOBUY, FOTOWANT, and POSTINFO) representing questions on the survey about sharing links to stories on one's own page or on others' pages, recommending content from other websites, sharing photos on one's profile page, sharing photos or links of items recently purchased or something one would like to purchase, and posting information about specific products. A Mann-Whitney U test was performed to determine if there were differences in the combined ranks of variables relating to sharing behaviors between innovators (mean rank = 266.32) and non-innovators (mean rank = 233.41). A statistically significant difference between the groups was found, U = 13,825, and p = .049. (See Table 2).

Table 2 - Mann-Whitney U Tests for Social Networking Site Usage

	Innovators		Non-Innovators			
SNS Usage	*n*	*Mean Rank*	*n*	*Mean Rank*	*U*	*p*
H5a - Days per Week	97	346.67	505	292.82	20,111	.001**
H5b - Times per Day	95	365.56	497	283.30	17,047	< .001**
H5c - Length of Visit	94	317.06	494	290.21	21,097	.157
H5d - Depth of Visit	90	310.91	437	254.34	15,443	.001**
H6a - Interacting	86	301.92	421	244.21	13,981.5	.001**
H6b - Sharing	81	266.32	396	233.41	13,825	.049*

* p <.05, ** p <=.001

Descriptive Statistics

Answers to several survey questions were expected to provide additional information about how innovators use social networking sites, including which sites the subjects used most, the number of sites used, methods of access, and the numbers of "friends" or "followers" the subjects had. These answers were evaluated using crosstabs on SPSS. Just as in the other tests, the responses were divided into two groups: innovators and non-innovators. There were some interesting observations that could be made, but only one of the variables was found to be statistically significant. For more information, see Table 3.

Most Used Social Networking Sites

Just like in "real life," where 71% of social networking site users are on Facebook (Duggan et al., 2015), Facebook was the overwhelming favorite social networking site for both groups, with 73.2% for innovators, and 71.6% for non-innovators. Twitter was in a distant second, with 9.3% for innovators, and 7.9% for non-innovators. Instagram and Reddit were tied for third place - with 5.2 and 3.0% using Instagram, and 5.2 and 2.8% using Reddit. In general, a greater percentage of innovators than non-innovators used each site, with one notable exception - 5.3% of non-innovators used Google +, where only 2.1% of innovators did. A chi-square test failed to show asymptotic significance at the .05 level, with .235. The significance level is considered to be asymptotic when the test is non-parametric. (See Table 3.)

Number of Sites Used

Innovators are active on more social networking sites than non-innovators. The majority (39.4%) of non-innovators were active on two sites, where 53.1% of innovators were active users on three or more sites, of that, 27.1% used four or more. More than 61% of non-innovators were active on one or two sites, where 45.9% of innovators used just one or two. A Pearson chi-square test showed asymptotic significance at the .05 level, with .007. (See Table 4.)

Number of Facebook Friends

Innovators had more Facebook friends overall than non-innovators. The majority of subjects reported that they had between 101 and 250 friends on Facebook (or similar sites that have "friends" as contacts), but almost 6 percent more innovators fell into this range. Seven percent more innovators than non-innovators said they had more than 500 Facebook friends. A Pearson chi-square test showed asymptotic significance at the .05 level, with .009. (See Table 5.)

Number of Twitter Followers

Innovators were expected to have had more Twitter followers overall than non-innovators, similar to expectations for Facebook, but the percentages trended about the same for both groups. The exceptions were the categories for 51 to 100 and 101 to 250 followers, where 6.2% and 8.2% more innovators than non-innovators reported these ranges as containing their total number of followers. The largest percentages of both groups had between 2 and 50 followers on Twitter (or similar sites that have "followers" as contacts), almost 40% for both groups. Between 3.1 and 4.4% of subjects in both

groups had more than 500 followers. The results were not as notable as expected, since Twitter came in second among innovators as their most-used social networking site. A Pearson chi-square test showed asymptotic significance at the .05 level, with .015. (See Table 6.)

Methods of Accessing Social Networking Sites

Both groups reported they accessed the social networking sites in about the same ways: Almost 33% of non-innovators indicated they only used a desktop or laptop, versus 14.4% for innovators. Close to 6% more innovators than non-innovators used smartphones or tablets to access the sites more often than desktops or laptops. Very few in either category only used a smartphone or tablet for access. Instead, the majority of all subjects said they used a combination of methods. Desktops were used more than expected, probably because subjects are using their work computers to check their profiles during lunch or a break. A chi-square test showed asymptotic significance at the .05 level, with .005. (See Table 7.)

Table 3 - Most Commonly Used Social Networking Sites

	Innovators		Non-Innovators			
Site Used the Most	n	%	n	%	$\chi 2$	p
	N=590					
Don't Use SNS	1	1.0%	11	2.2%	12.81	.235
Facebook	71	73.2%	353	71.6%		
Twitter	9	9.3%	39	7.9%		
Instagram	5	5.2%	15	3.0%		
Tumblr	3	3.1%	4	0.8%		

Table 3 continues

Table 3 - Continued

Site Used the Most	Innovators n	Innovators %	Non-Innovators n	Non-Innovators %	$\chi 2$	p
	N=590					
Google +	2	2.1%	26	5.3%		
LinkedIn	1	1.0%	18	3.7%		
Pinterest	0	0.0%	9	1.8%		
Ello	0	0.0%	2	0.4%		
Reddit	5	5.2%	14	2.8%		
A Different One	0	0.0%	2	0.4%		

Table 4 - Number of Social Networking Sites Used

No. of Sites Used	Innovators n	Innovators %	Non-Innovators n	Non-Innovators %	$\chi 2$	p
	N=593					
Don't Use SNS	1	1.0%	15	3.0%	14.26	.007*
Not an Active Member of More Than 1	14	14.6%	110	22.1%		
Two	30	31.3%	196	39.4%		
Three	25	26.0%	107	21.5%		
Four or More	26	27.1%	69	13.9%		

* $p < .05$

Table 5 - Number of Facebook Friends

No. of Facebook Friends	Innovators n	Innovators %	Non-Innovators n	Non-Innovators %	$\chi 2$	p
	N=595					
Don't Use SNS	1	1.0%	10	2.0%	18.84	.009*
Not a member of a site like that	0	0.0%	0	0.0%		
0	0	0.0%	4	0.8%		
1	3	3.1%	39	7.8%		
2-50	9	9.4%	96	19.2%		
51-100	9	9.4%	81	16.2%		
101-250	27	28.1%	111	22.2%		
251-500	27	28.1%	89	17.8%		
More than 500	20	20.8%	69	13.8%		

* p <.05

Table 6 - Number of Twitter Followers

No. of Twitter Followers	Innovators n	Innovators %	Non-Innovators n	Non-Innovators %	$\chi 2$	p
	N=571					
Don't Use SNS	1	1.0%	11	2.3%	17.48	.015*
Not a member of a site like that	0	0.0%	0	0.0%		
0	3	3.1%	25	5.3%		
1	13	13.5%	127	26.7%		

Table 6 - continues

Table 6 - Continued

No. of Twitter Followers	Innovators n	Innovators %	Non-Innovators n	Non-Innovators %	χ2	p
	N=571					
2-50	37	38.5%	181	38.1%		
51-100	16	16.7%	50	10.5%		
101-250	15	15.6%	35	7.4%		
251-500	8	8.3%	25	5.3%		
More than 500	3	3.1%	21	4.4%		

* p <.05

Table 7 - Method of Accessing Social Networking Sites

Method of Access	Innovators n	Innovators %	Non-Innovators n	Non-Innovators %	χ2	p
	N=601					
I don't use SNS	2	2.1%	13	2.6%	16.65	.005*
Desktop or laptop	14	14.4%	164	32.5%		
Mostly desktop or laptop; sometimes smartphone or tablet	36	37.1%	154	30.6%		
Only on smartphone or tablet	2	2.1%	22	4.4%		
Desktop, laptop, smartphone, tablet - about the same	23	23.7%	76	15.1%		
Mostly smartphone or tablet, sometimes on desktop or laptop	20	20.6%	75	14.9%		

* p <.05

Demographic and Socioeconomic Characteristics

Even though they were not included in the hypotheses, questions about demographics and socioeconomic characteristics were added at the end of the survey, in order to note any relationships between the two groups now, where researchers in the past

have been unable to collect reliable results. This information would also be helpful for future research on segmentation, to study social networking site activity and innovativeness based on age group, income level, or educational status, etc.

They were compared with the innovativeness scores by using a chi square/crosstabs calculation. There were a few interesting observations that were made from the results. The breakdown of males to females was almost exactly the same for the full group as it was for the innovators' group and the non-innovators' group, so it was easy to see gender had no effect on the subject's innovativeness scores. The results for employment status for the two groups also were about the same. The innovators group was about 12% more likely to have a full time job than were non-innovators, but that was the number one classification for both groups. None of the results for the chi-square/crosstabs tests was found to be significant for any of the categories in this section. For more information, see Table 8.

Table 8 - Demographics and Socioeconomic Characteristics

Demographics/Socioeconomic Characteristics		Innovators		Non-Innovators			
		n	*%*	*n*	*%*	χ^2	*p*
Gender	N= 600						
	Female	50	51.5%	263	52.3%	.018	.894
	Male	47	48.5%	240	47.7%		
Age	N=601						
	18-20	1	1.0%	5	1.0%	6.64	.249
	21-29	37	38.5%	167	33.1%		
	30-39	35	36.5%	148	29.3%		
	40-49	13	13.5%	93	18.4%		
	50-59	7	7.3%	50	9.9%		
	60+	3	3.1%	42	8.3%		

		Innovators		Non-Innovators			
		n	*%*	*n*	*%*	χ^2	*p*
Education	N=601						
	Less than high school	0	0.0%	6	1.2%	1.26	.939
	High school	5	5.2%	26	5.2%		
	Some college	11	11.3%	58	11.5%		
	Associate degree	5	5.2%	29	5.8%		
	Bachelor's degree	46	47.4%	231	45.8%		
	Graduate degree	30	30.9%	154	30.6%		

Table 8 continues

Table 8 continued

Demographics/Socioeconomic Characteristics		Innovators		Non-Innovators			
		n	%	*n*	%	χ^2	*p*
Race	N=598						
	White	57	59.4%	252	50.2%	3.3	.348
	Black/African-American	5	5.2%	22	4.4%		
	Asian	30	31.3%	199	39.6%		
	Other	4	4.2%	29	5.8%		
Income	N=567						
	Less than $20,000	24	25.8%	150	31.6%	5.22	.516
	$20,000-$34,999	19	20.4%	79	16.7%		
	$35,000-$49,999	14	15.1%	76	16.0%		
	$50,000-74,999	22	23.7%	76	16.0%		
	$75,000-$99,999	6	6.5%	43	9.1%		
	$100,000-$149,999	4	4.3%	29	6.1%		
	$150,000 +	4	4.3%	21	4.4%		

Table 8 continues

Table 8 continued

		Innovators		Non-Innovators			
		n	%	*n*	%	χ^2	*p*
Employment Status	N=596						
	Employed, 40+ hrs a week	68	70.1%	289	57.9%	9.31	.097
	Employed, <=39 hrs a week	20	20.6%	130	26.1%		
	Not employed, looking for work	6	6.2%	23	4.6%		
	Not employed, not looking for work	2	2.1%	23	4.6%		
	Retired	1	1.0%	27	5.4%		
	Disabled, unable to work	0	0.0%	7	1.4%		

Discussion and Conclusion

The outcome of the study was almost exactly as expected, that innovative people would exhibit the personality traits to a greater degree and would report higher levels of social networking site usage and interaction with peers than non-innovative people did. Hypotheses for two of the four motivating personality traits, novelty-seeking behavior and cosmopoliteness, found support, and six of the seven hypotheses about time spent and interaction with peers on social networking sites found support.

Table 9: Hypothesis Overview

H1	Innovators = higher degree of risk-taking/venturesomeness	Not supported
H2	Innovators = greater need for novelty-seeking	**Supported**
H3	Innovators = greater need to feel and be unique	Not supported
H4	Innovators = higher degree of cosmopoliteness	**Supported**
H5a	Innovators = more time using SNS based on # of days a week visited	**Supported**
H5b	Innovators = more time through greater frequency of SNS visits	**Supported**
H5c	Innovators = more time through length of SNS visits	Not supported
H5d	Innovators = deeper level of engagement per visit	**Supported**
H6a	Innovators = interact more online with others	**Supported**
H6b	Innovators = share more online with others	**Supported**

Personality Traits

The results did not support the hypothesis (H1), where innovators are more likely to show a higher degree of risk-taking/venturesomeness than non-innovative people. This was surprising, since venturesomeness was what Rogers called "the most salient value" of personal innovativeness (2003, p. 283). Perhaps the word "innovators" in this sentence from the literature review - *Innovators are unafraid to branch out of their comfort zone of their current social networks in order to retrieve this information* - should just be

replaced with "risk-takers" instead. Risk-taking (venturesomeness) partnered with innovativeness implies a time-based connection, where the risk-taking is taking place during the early product adoption or information retrieval phase, but really, the action of risk-taking for a consumer can take place no matter how long a product has been available. It just would need to be a risk for that person.

The hypothesis (H2) that innovators have a greater need for novelty-seeking than non-innovators was supported by the results. Novelty-seeking behavior was the trait described in the literature review that had the strongest connection to innovativeness research: Hirschman found a relationship between novelty-seeking and innovative behavior (1980, p, 285), and Manning et al. wrote that novelty-seeking behavior by consumers is a first step toward actualized innovativeness - going out and getting the new product (1995, p. 341). There is also a connection between novelty-seeking behavior and computer and technology-related product adoption (Chau & Hui, 1998, p. 229; Lin, 2006, p. 233, 235). This extends to adoption of social networking sites too, and is backed by Correa et al.'s supported hypothesis that "people who are more open to new experiences than others use social networking sites more frequently" (2011, p. 249).

The hypothesis (H3) that innovators are more likely to have a greater need to feel and be unique was not supported by the results. While the description of the uniqueness-seeker from the literature review still fits - *looking for new items as other people catch on to current trends, especially items identified by others as outside the norm (Burns & Krampf, 1992, p. 230)* - perhaps uniqueness-seeking's relationship to innovativeness is similar to that of risk-taking, where the timeliness of the adoption of the product was overestimated. Since the results were not found to be significant, it could be that the

products being adopted by uniqueness-seekers are not new to the market or are obtained earlier, but are just different, such as a vintage item from a thrift store, or a reboot of a fad.

The hypothesis (H4) that innovators are more likely to have a higher level of cosmopoliteness was supported by the results. This ties back to Jeffres et al.'s 2004 research which described cosmopoliteness as having knowledge and an appreciation of different cultures, especially international ones. Cosmopoliteness and innovativeness connect as the cosmopolitan person comes across new ideas, experiences, and products to try.

Social Networking Site Usage

H5a was supported by the results, where it was hypothesized that innovators report that they spend more time using social networking sites than non-innovators do, based on days of the week they visit the sites. This was interesting, considering the popularity of these sites. It was expected that too many subjects (from both groups) would report themselves to be daily users for this comparison to have made a difference, that innovators would be unable to check their profiles any more days a week than non-innovators did.

H5b was also supported, where it was hypothesized that innovators report that they spend more time using social networking sites than non-innovators do, based on frequency of site visits - so innovators check their pages a greater number of times on a typical day than non-innovators do.

It was expected that the time spent per visit and the level of engagement per visit would help to give more insight about what is actually happening when subjects visit the

sites. Unfortunately, H5c was the one hypothesis in this section where the results were not supported, that innovators spend more time using social networking sites than non-innovators do, based on length of site visits. However, the results for H5d were supported, where it was hypothesized that innovators report that they had a deeper level of engagement through successive page views per browsing session than non-innovators do. Perhaps this is an indicator of quality over quantity, where the deeper level of engagement by innovators is happening at a faster rate - they know where they want to go and jump in and out of the sites. (Or they can type and click faster!)

The positive results achieved in this study for H5a and b (frequency of site visits) and H5d (depth of engagement) tie back to Summers's findings from 1972, where innovators are exposed to mass media more often and to a greater degree than non-innovators (p. 44) and to Rogers's findings in 2003 that "earlier adopters have greater exposure to mass media communication channels than do later adopters" (p. 291).

The results were supported for H6a, where it was hypothesized that innovators report that they interact online with others more often than non-innovators do. This is similar to the connection Pagani et al. found between active involvement in online social networking, where active use equals sharing and interacting (2011, p. 450-451). What these findings do not tell us is whether the innovators are acting as opinion leaders and change agents during these interactions, and are directly encouraging the spread of the information to others, or whether they are interacting with people who are.

Pagani et al.'s research (2011, p. 450-451) also corresponds positively to the results found for H6b, where it was hypothesized that innovators report sharing more items online with others than non-innovators do, which was supported. Grewal et al.'s

research, too, reinforces the findings for H6b, where possessions (especially new ones!) help foster a person's self-image and social identity, and "play an important role in personal innovativeness and opinion leadership" (2000, p. 233, 247). Innovators share new discoveries online with others more often, because it makes them feel good, and all of their browsing yields more content to share.

Demographics and Socioeconomic Characteristics Are Still Not Helpful

None of the demographics or socioeconomic characteristics was statistically significant, which was not a surprise. As mentioned in the literature review, diffusion researchers have had both successes and failures testing on similar demographic and social characteristics, such as age, education, and income (Dupagne and Driscoll, 2010, p. 219). Even though much of this research was performed years ago, the addition of the Internet to the range of media through which diffusion takes place still does not make a noticeable difference with these variables - and demographics and social statuses apparently still "reveal little" about the motivations of innovative consumers (Goldsmith, 2001, p. 150)!

The New Profile of an Innovator

After compiling the characteristics which can be generated from the supported hypotheses, a specific profile of an innovator includes the following descriptors, where innovative people display these qualities more often than non-innovators:

- A propensity towards novelty-seeking behavior.
- Higher levels of cosmopoliteness.
- Checking profiles most days during the week, if not every day.

- Browsing a lot on others' profile pages.
- Higher levels of engagement on social networking sites in general.
- Interacting more often with contacts, including "friends" or "followers."
- Sharing content more often on one's own or on others' profile pages.
- Activity on multiple social networking sites.
- Greater numbers of Facebook friends.
- Using smartphones and tablets more often to access social networking sites.

Limitations of the Sample

Since subjects were recruited online, a greater proportion of the sample was already familiar with using social networking sites than might exist in the general population, especially those subjects recruited via Amazon's MTurk, with which many people are unfamiliar. This might have led to an inflated number of innovators. While the MTurk subjects' demographics provided a good variety of ages and educational backgrounds, there was a greater proportion in the sample of subjects recruited from social media and through word of mouth who were older and had a higher level of education than the existing proportion of the general population does. Also, the percentages of the subjects' races did not match the general population. An effort to recruit subjects as part of a more representative sample might have yielded different results.

Limitations of the Instrument

If the survey could be re-done, there would be a change or two that would take place, specifically by including answer choices where respondents could indicate that they had once been active users of social networking sites, but then lost interest and quit using them - that would have been interesting to see what the level of drop-off was (and could be an idea for future research). Also, while it was necessary for the social networking sites usage questions to be formatted as ranges for the answer choices, the need to make values within the ranges equal was not something that was realized during the instrument construction process! Even though the answer choices were coded for SPSS so that they all increased in the same direction, the equal ranges might have made a difference in the results.

Limitations of the Research Question in General

One aspect of the theory of diffusion of innovations that the question of defining and describing an innovator cannot help answer is the status of each innovator as an opinion leader or change agent, and the efficacy of the message being transmitted to peers (Bohlmann, Calantone, & Meng, 2010, p. 742). Innovators can attempt to communicate online all day long, but there is no guarantee their suggestions will be noted by anyone and acted upon. Also, the diffusion process can only ensure the information about specific products or innovations is being communicated in between members of a social group, but there is no way to predict purchase intent and product adoption by a consumer after he or she learns about it.

Predicting future innovations is a question neither the theory nor the research problem can answer. There is not a good way to be able to anticipate future fads and trends based on previous purchases and popularity of products and online trends. Innovators have many similar qualities, but they are all different people with different tastes! Also, there is no way to know in advance what types of items will be available for consumption in the [near] future.

Areas for Further Research

Since there is not a lot of previous research material available comparing innovativeness and social networking site use, there are many opportunities for further research:

- Which social networking sites' features are the most effective for innovators' specific communication needs.
- Whether innovators display a greater level of innovativeness on different sites.
- If innovators are more likely to create original content through these sites.
- Categorization of the four personality traits by degree (just how much of a novelty-seeker is the subject?)
- Does possessing lower degrees of the four personality traits indicate a subject is the reverse of an innovator and is a laggard instead - the type of person who is the last in his or her peer group to receive information about new products and ideas?
- Testing for the opposite personality traits of the four positive ones tested here.
- What types of people and sites do innovators follow?

- What other mediums and social channels are best for innovators to help diffuse information?
- Comparing innovators, personality traits, social networking site use, and rejection of a product or idea, or even a social networking site - past its prime.
- Finally, since Summers's research comparing innovativeness and mass media use in general is from 1972, taking another look there might have different results, considering all of the changes in technology and entrance of new mediums, such as the Internet, which have taken place since then.

Conclusion

The findings of this research support the existing literature - innovators are interested in, and seek out, new things, and will expand their horizons to find them (Hirschman, 1980; Manning et al., 1995; Chau & Hui, 1998; Lin, 2006; Correa et al., 2011; Jeffres et al., 2004). They then receive more exposure to more "interpersonal communication channels" than non-innovators do (Rogers, 2003, p. 291), as they spend more time and interact more with peers on social networking sites (Summers, 1972; Rogers, 2003; Pagani et al., 2011; Grewal et al., 2000), which ultimately translates to greater opportunities to spread new information they have found to others. This research contributes to the existing body of literature on personal innovativeness, as the only descriptive profile [seen] used as an identification method that has been constructed since the advent of the Internet and social networking sites.

Moving forward, this profile can be useful (and valuable!) to advertisers, publicists, and marketers who wish to recruit innovative people in order to help

disseminate information about new products, or to communicate quickly and effectively with a large number of people in a short amount of time. Each descriptor in the profile can be used in different ways to reach innovators, and messages on specific sites, greater frequency and variety of new postings, calls for innovators to share certain content, invitations to focus groups, and postings optimized for mobile and tablet apps, are among suggested methods.

REFERENCES

Ad Council. (2015, March 3). *Love has no labels*. Retrieved from http://lovehasnolabels.com/

Adler, E. (2013, December 16). A social engagement primer: A portrait of time spend and activity on the top social networks. *BII Intelligence*. Retrieved from https://intelligence.businessinsider.com/a-social-engagement-primer-2013-12

American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: American Psychological Association.

Amichai-Hamburger, Y. & Vinitzky, G. (2010). Social network use and personality. *Computers in Human Behavior, 26*(6), 1289-1295.

ASAP Science. (2015, February 27). *What colour is this dress?* Retrieved from https://www.youtube.com/watch?v=AskAQwOBvhc

Berinsky, A.J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. *Political Analysis.* doi:10.1093/pan/mpr057.

Bohlmann, J. D., Calantone, R. J., & Meng, Z. (2010). The effects of market network heterogeneity on innovation diffusion: An agent-based modeling approach. *Journal of Product Innovation Management, 27*(5), 741-760. doi:10.1111/j.1540-5885.2010.00748.x

Boone, L. E. (1970). The search for the consumer innovator. *The Journal of Business, 43*(2), 135-140. Retrieved from http://www.jstor.org/stable/2352106

Bruner, G. C. & Kumar, A. (2007). Gadget lovers. *Academy of Marketing Science Journal, 35*(3), 329-339. doi:http://dx.doi.org/10.1007/s11747-007-0051-3

Burns, D. J., & Krampf, R. R. (1992). Explaining innovative behavior: Uniqueness-seeking and sensation-seeking. *International Journal of Advertising, 11*, 227-237.

Chau, P. & Hui, K. L. (1998). Identifying early adopters of new IT products. *Information Management*, 33, 225-230.

Chen, Y. (2011). See you on Facebook: Exploring influences on Facebook continuous usage. *Behaviour & Information Technology, 33*(11), 1208-1218. doi:10.1080/0144929X.2013.826737

CNN.com. (2015, February 26). *Llamas escape captivity, run free*. Retrieved from http://www.cnn.com/videos/us/2015/02/26/nr-vo-llamas-on-the-loose-arizona.cnn

Correa, T., Hinsley, A. W., and de Zúñiga, H. G. (2009). Who interacts on the Web?: The intersection of users' personality and social media use. *Computers in Human Behavior, 26*, 247–253.

Creative Research Systems. (n.d.) *Sample Size Calculator*. Retrieved from http://www.surveysystem.com/sscalc.htm

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage Publications.

Dickerson, M. D. & Gentry, J. W. (1983) Characteristics of adopters and non-adopters of home computers. *Journal of Consumer Research, 10*(2), 225-235. Retrieved from http://www.jstor.org.proxy.mul.missouri.edu/stable/2488926

Duggan, M., Ellison, N. B., Lampe, C., Lenhart, A., & Madden, M. (2015, January 9). Social media update 2014. *Pew Research Internet Project.* Retrieved from http://www.pewinternet.org/2015/01/09/social-media-update-2014/

Dupagne, M., & Driscoll, P. D. (2010). Comparison between early high-definition television owners and non-owners. *Journal of Media Economics, 23*(4), 216-230. doi:10.1080/08997764.2010.527226

Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). London, UK: Sage Publications.

Goldsmith, R. E. (1984). Personality characteristics associated with adaption-innovation. *Journal of Psychology, 117*(2), 159.

Goldsmith, R. E. (2001). Using the domain specific innovativeness scale to identify innovative internet consumers. *Internet Research, 11*(2), 149-158.

Goldsmith, R. E. & Flynn, L. R. (1992). Identifying innovators in consumer product markets. *European Journal of Marketing 26*(12). 42-55.

Goldsmith, R. E. & Hofacker, C. (1991). Measuring consumer innovativeness, *Journal of the Academy of Marketing Science, 19*(3), 209–221.

Grewal, R., Mehta, R., & Kardes, F. R. (2000). The role of the social-identity function of attitudes in consumer innovativeness and opinion leadership. *Journal of Economic Psychology, 21*(3) 233-252. doi:10.1016/S0167-4870(00)00003-9.

Hampton, K., Goulet, L. S., Marlow, C., Rainie, L. (2012, February 3). Why Facebook users get more than they give. *Pew Internet and American Life Project.* Retrieved from http://www.pewinternet.org/files/old-media//Files/ Reports/2012/PIP_Facebook%20users_2.3.12.pdf

Hampton. K., Goulet, L. S., Rainie, L., & Purcell, K. (2011, June 16). Social networking sites and our lives. *Pew Internet and American Life Project*. Retrieved from http://www.pewinternet.org/2011/06/16/social-networking- sites-and-our-lives/

Hirschman, E. C. (1980). Innovativeness, novelty seeking, and consumer creativity. *Journal of Consumer Research, 7*(3), 283-295.

Howard, P. E. N., Raine, L., & Jones, S. (2001). Days and nights on the internet: The impact of a diffusing technology. *The American Behavioral Scientist, 45*(3), 383-404. Retrieved from http://search.proquest.com/docview/214768290?accountid= 14576

Im, S., Bayus, B. L., & Mason, C. L. (2003). An empirical study of innate consumer innovativeness, personal characteristics, and new-product adoption behavior. *Academy of Marketing Science, 31*(1), 61-73. doi:10.1177/0092070302238602

Instagram (2014). *Stats*. Retrieved from http://instagram.com/press/

Jeffres, L. W., Atkin, D. J., Bracken, C. C., & Neuendorf, K. A. (2004). Cosmopoliteness in the Internet age. *Journal of Computer-Mediated Communication, 10*. doi: 10.1111/j.1083-6101.2004.tb00227.x

Jepsen, Carly Rae. (2015, March 7). *I really like you*. Retrieved from https://www.youtube.com/watch?v=qV5lzRHrGeg

Kluber, A. (2013). *Media use amongst American expatriates in South Korea*. (Unpublished master's thesis). University of Missouri, Columbia, Missouri.

Kohn, C. A., & Jacoby, J. (1973). Operationally defining the consumer innovator. *Proceedings of the Annual Convention of the American Psychological Association*, 1973, 843-844.

Leading social networks worldwide as of November 2014, ranked by number of active users (in millions). (2014, November). *Statista*. Retrieved from http://www.statista.com/statistics/272014/global-social-networks -ranked-by-number-of-users/

Lee, H., Kim, D., Ryu, J., Lee, S. (2011). Acceptance and rejection of mobile TV among young adults: A case of college students in South Korea. *Telematics and Informatics, 28,* 239-250.

Leung, L. (1998). Lifestyles and the use of new media technology in urban China. *Telecommunications Policy, 22*(9), 781-790.

Lin, C. A. (2001). Audience attributes, media supplementation, and likely online service adoption. *Mass Communication and Society, 4*(1), 19-38. doi: 10.1207/S15327825MCS0401_03

Lin, C. A. (2006). Predicting webcasting adoption via personal innovativeness and perceived utilities. *Journal of Advertising Research, 46*(2), 228-238.

Lin, C. A., & Jeffres, L. W. (1998). Factors influencing the adoption of multimedia cable technology. *Journalism and Mass Communication Quarterly, 75*(2), 341-352. Retrieved from http://search.proquest.com/docview/216931074?accountid=14576

Lund Research, Inc. (2015). *Laerd Statistics.* Retrieved from https://statistics.laerd.com/

Manning, K. C., Bearden, W. O., & Madden, T. J. (1995). Consumer innovativeness and the adoption process. *Journal of Consumer Psychology, 4*(4), 329-345.

Midgley, D. F. & Dowling, G. R. (1978). Innovativeness: The concept and its measurement. *Journal of Consumer Research, 4*(4), 229-242. Retrieved from http://www.jstor.org.proxy.mul.missouri.edu/stable/2488813

NBC News. (2014, August 22). *Ice Bucket Challenge: Cash raised can't fill hole in ALS research.* Retrieved from http://www.nbcnews.com/health/health-news/ice-bucket-challenge-cash-raised-cant-fill-hole-als-research-n186356

Nicol, A. A., & Pexman, P. M. (2010). *Displaying your findings: A practical guide for creating figures, posters, and presentations* (6th ed.). Washington. D.C: American Psychological Association.

Nielsen. (2012, December 12). *State of the media: Social media report 2012*. Retrieved from http://www.nielsen.com/content/dam/corporate/us/en/reports-downloads/2012-Reports/The-Social-Media-Report-2012.pdf

Nielsen. (2014, September 8). *Shifts in viewing: The cross-platform report*. Retrieved from http://www.nielsen.com/content/dam/corporate/us/en/reports-downloads/2014%20Reports/q2-2014-cross-platform-report-shifts-in-viewing.pdf

Nike Football. (2014, April 25). *Winner stays*. Retrieved from

https://www.youtube.com/watch?v=3XviR7esUvo&list=PLSTz8jpJdr5qSwmFacIKS8vEftrqAFQj_&index=2

Özgüven**,** N. & Mucan, B. (2013). The relationship between personality traits and social media use. *Social Behavior and Personality: An International Journal, 41*(3), 517-528.

Pagani, M., Hofacker, C. F., & Goldsmith, R. E. (2011). The influence of personality on active and passive use of social networking sites. *Psychology & Marketing, 28*(5), 441-456. doi:10.1002/mar.20395

Pew Research Internet Project. (2014, September). *Social networking fact sheet*. Retrieved from http://www.pewinternet.org/fact-sheets/social-networking- fact-sheet/

PewDiePie. (2015, March 8). *The worst game ever created*. Retrieved from https://www.youtube.com/watch?v=zdwY0J3coG0

Pizam, A. (1972, January 1). Psychological characteristics of innovators. *European Journal of Marketing, 6*(3), 203-210.

Pllieva, T. (2014, March 10). *First Kiss*. Retrieved from https://www.youtube.com/watch?v=IpbDHxCV29A&index=3&list=PLSTz8jpJdr5qSwmFacIKS8vEftrqAFQj_

PullTabProductions2015. (2015, March 7). *Minnesota State High School All Hockey Hair Team*. Retrieved from https://www.youtube.com/watch?v=IzhSpdPqexY

Rodgers, S., Chen, Q., Duffy, M., and Fleming, K. (2007). Media usage as health segmentation variables. *Journal of Health Communication, 12*(2), 105-119.

Roehrich, G. (2004). Consumer innovativeness: Concepts and measurements. *Journal of Business Research, 57*, 671-677. doi: 10.1016/S0148-2963(02)00311-9.

Rogers, E. M. (1963). What are innovators like? *Theory into Practice, 2*(5), 252-256. Retrieved from http://www.jstor.org/stable/1475364

Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York, NY: Free Press.

Rogers, E. M., & Singhal, A. (1996). Diffusion of innovations. In M. Salwen, & D. Stacks (Eds.), *An Integrated Approach to Communication Theory and Research*. Mahwah, NJ: LEA.

Rose, R. L., Bearden, W. O., and Manning, K. C. (1996). Using individual differences to segment the "market" for an attribution-based substance abuse intervention

program. *Journal of Public Policy & Marketing, 15*(2), 252-262.

Ross, C., Orr, E. S., Sisic, M., Arseneault, J. M., Simmering, M., & Orr, R. R. (2009). Personality and motivations associated with Facebook use. *Computers in Human Behavior, 25*(2), 578-586. doi:10.1016/j.chb.2008.12.024

Ross, J., Irani, I., Silberman, M. Six, Zaldivar, A., and Tomlinson, B. (2010). *Who are the crowdworkers?: Shifting demographics in Amazon Mechanical Turk.* Paper presented at the ACM CHI Conference in 2010. Retrieved from http://www.researchgate.net/publication/221519699_Who_are_the_crowdworkers_shifting_demographics_in_mechanical_turk

Ryan, B., & Gross, N.C. (1943). The diffusion of hybrid seed corn in two Iowa communities. *Rural Sociology, 8,* 15-24.

Shu-Chu Sarrina, L. (2004). Exploring the factors influencing the adoption of interactive cable television services in Taiwan. *Journal of Broadcasting & Electronic Media, 48*(3), 466-483.

Slater, M. D. (1996). Theory and method in health audience segmentation. *Journal of Health Communication, 1*(3), 267-284. doi:10.1080/108107396128059

Sue, V. M., & Ritter, L.A. (2012). *Conducting online surveys* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Summers, J. O. (1972). Media exposure patterns of consumer innovators. *Journal of Marketing, 36*(1), 43-49.

Survey Monkey (n.d.) *Employment Template*. Retrieved from https://www.surveymonkey.com/r/?sm=uakOxnhzEDJsboTnCjmY%2bCdCoKi10Rxgs3mBPX3PgOs%3d

Survey Monkey (n.d.) *U.S. Demographics Snapshot Template*. Retrieved from https://www.surveymonkey.com/r/?sm=Vcc8h0I4gMbV28y5zKWDidRqkWSXrIuR7iwJJy%2bjAbs%3d

Tian, K. T, Bearden, W. O., & Hunter, Gary L. (2001, June). Consumers' need for uniqueness: Scale development and validation. *Journal of Consumer Research, 28*(1), 50-66. Retrieved from http://www.jstor.org.proxy.mul.missouri.edu/stable/10.1086/321947

Unruly Media (2015, March 8). *Viral video chart: Top 100 videos*. Retrieved from http://viralvideochart.unrulymedia.com/all?items=100

Using SPSS to Transform Variables. (n.d.). Retrieved from

http://academic.udayton.edu/gregelvers/psy216/SPSS/transform.htm

YouTube (2014). *Top trending videos of 2014.* Retrieved from https://www.youtube.com/playlist?list=PLSTz8jpJdr5qSwmFacIKS8vEftrqAFQj_

YouTube (2015, March 8). *Trends dashboard*. Retrieved from https://www.youtube.com/trendsdashboard

The Voice IT (2014, March 14). *Sister Cristina Scuccia*. Retrieved from https://www.youtube.com/watch?v=TpaQYSd75Ak&index=4&list=PLSTz8jpJdr5qSwmFacIKS8vEftrqAFQj

Wimmer, R. D., & Dominick, J. R. (2011). *Mass media research: An introduction* (9th ed.). Boston, MA.: Wadsworth.

Wardega, S.A. (2014, September 4). *Mutant giant spider dog*. Retrieved from https://www.youtube.com/watch?v=YoB8t0B4jx4&list=PLSTz8jpJdr5qSwmFacIKS8vE ftrqAFQj_&index=1

APPENDIX A

Survey Questions

Interest and membership in social networking sites:

(questions adapted from Pew SNS and Facebook Study, 2010)

-- On which social networking sites do you have an account?

Respondents check a box next to each site name.

- o Facebook
- o Twitter
- o Instagram
- o Tumblr
- o Google+
- o LinkedIn
- o Pinterest
- o Ello
- o Reddit
- o A different one than what's listed here
- o I don't use social networking sites
- o Don't know
- o Refuse to answer

-- If you indicated one or more sites on the first question, which one do you use most regularly? (*Respondents check a box next to each site name.)*

- Facebook
- Twitter
- Instagram
- Tumblr
- Google+
- LinkedIn
- Pinterest
- Ello
- Reddit
- A different one than what's listed here
- I don't use social networking sites
- Don't know
- Refuse to answer

-- If you are an active member of more than one social networking site, how many sites do you use?

(Not an active member of more than one/Two/Three/Four/Four or more/I don't use social networking sites/Don't know/Refuse to answer)

--If you are an active member of a site which lists connections as "friends," like Facebook, how many "friends" would you say you have TODAY?

(Not a member of a site like that/0/1/2-50/51-100/101-250/251-500/More than 500/I don't use social networking sites/Don’t know/Refuse to answer)

--If you are an active member of a site which lists connections as "followers," like Twitter or Instagram, how many "followers" would you say you have TODAY?

(Not a member of a site like that/0/1/2-50/51-100/101-250/251-500/More than 500/I don't use social networking sites/Don’t know/Refuse to answer)

Innovativeness Scale: (Goldsmith & Hofacker, 1991, p. 212; Goldsmith & Flynn, 1992, p. 46)

Please indicate a point on the scale, from strongly disagree (1) to strongly agree (5), how well you feel each of the following statements describes you in your personal life:

-- In general, I am among the last of my friends to hear about a new viral video after it appears. (Reverse-scored)

-- If I heard about a viral video, I would be interested enough to try to find it online.

-- Compared to my friends, I've seen fewer or no viral videos. (Reverse-scored)

-- I will watch a new viral video, even if I have not heard about it from my friends yet.

-- In general, I'm among the last in my circle of friends to know the names of the latest viral videos. (Reverse-scored)

-- I know the names of new viral videos before other people do.

Viral Videos Inventory:

For each entry on the following list of items, please indicate if you have viewed the item before (all or in part):

Each item includes the answer choices - (Have viewed/Haven't viewed/Don't know/Refuse to answer)

- "Mutant Giant Spider Dog"
- Nike Football - "Winner Stays," featuring Ronaldo, Neymar, Jr. Rooney, etc.

- Ad Council - "Love Has No Labels"
- "Ballpark Bugs" (fake item)
- An "Ice Bucket Challenge" video
- PewDiePie - "The Worst Game Ever Created"
- ASAP Science - "What Colour Is This Dress? Solved with Science"
- First Kiss - (20 strangers kiss)
- "Minnesota State High School All Hockey Hair Team"
- "Carly Rae Jepsen - "I Really Like You"
- "The Voice" Italy - "Sister Cristina Scuccia"
- "Llamas on the Lam"

Personality Characteristics:

Please indicate a point on the scale, from strongly disagree (1) to strongly agree (5), how well you feel each of the following statements describes you:

(The captions indicating the specific traits do not appear on the actual survey.)

Risk-taking and Venturesomeness -

-- I don't mind spending money on a product if there's a chance it might not work out.

-- I like to experiment with new products.

-- Once I find a certain product or brand that I like, I stick with it.

-- I would rather be one of the first people to have a new product, rather than wait for any kinks to be ironed out.

-- I tend to buy new products early, before there's a lot of consumer feedback available on them.

Novelty-seeking - (all from Manning et al., 1995, p. 334)

-- I often seek out information about new products and brands.

-- I like websites that introduce new brands.

-- I seek out situations in which I will be exposed to information about new products and brands.

-- When I shop, I find myself spending very little time checking out new products and brands. (Reverse-scored)

-- I take advantage of the first available opportunity to find out about new and different products.

Need for uniqueness - (all from Tian et al., 2001, p. 55).

-- I look for one-of-a-kind products that will help me create my own style.

-- I typically buy products and brands that are popular among the general public.

-- I'm often on the lookout for new products or brands that will add to my personal uniqueness.

-- I have purchased unusual products or brands as a way to create a more distinctive personal image.

-- I try to avoid picking up specific styles and products I know are already popular.

Cosmopoliteness - (all from Dupagne & Driscoll, 2010, p. 221).

-- I like to meet people from different cultures.

-- I would not mind living abroad for 3 months, if I was able to.

-- I like to try out food from different countries.

-- I am open to new ideas from other cultures.

-- I enjoy traveling to different places.

Social Networking Site Time Spent and Usage Habits:

(Question sources: SNS and Facebook, 2010; Nielsen Social Media Report 2012, Pew Social Media Update 2014)

Please indicate how often or how you perform each of the following activities:

-- When I access social media sites, I use...

(Only a desktop or laptop/Mostly desktop or laptop, and sometimes on my smartphone or tablet/Only on my smartphone or tablet/Mostly smartphone or tablet, and sometimes on a desktop or laptop/I don't use social networking sites/Don't know/Refuse to answer)

-- How many days in a typical week do you use a social networking site? Consider the one you access most often, if you belong to more than one.

(One day a week, Two, Three or four, Five or six, Every day, Less than one day a week, I don't use social networking sites/Don't know/Refuse to answer)

-- On a typical day that you log into a social networking site, how many times do you log in? Consider the one you access most often, if you belong to more than one.

(Once, Twice, Three or four times, Five or six times, More than six times, I don't use social networking sites/ I don't use social networking sites/Don't know/Refuse to answer)

-- How long would you say an AVERAGE visit is for you each time, in minutes? Consider the one you access most often, if you belong to more than one.

(Less than 5 minutes, 5, 15, 30, 60, Greater than 60 minutes, I don't use social networking sites/Don't know/Refuse to answer)

-- How long would you say a LONG visit is for you each time, in minutes? Consider the one you access most often, if you belong to more than one.

(Less than 5 minutes, 5, 15, 30, 60, Greater than 60 minutes, I don't use social networking sites/Don't know/Refuse to answer)

--While you're logged on and browsing, how many pages/"walls"/profiles do you typically click on - not counting your own profile and your personal "news feed"- type screen?

(One/Two/Three or Four/Five or more/ I don't use social networking sites/Don't know/Refuse to answer)

--So, you're leisurely browsing on a distinct page/"wall"/profile, and you click onto content linked to that page. You see something interesting on *that* page that you click on....and so on. How many clicks away from that initial page do you typically get before you decide to move onto a new one?

(One/Two/Three or Four/Five or more/ I don't use social networking sites/Don't know/Refuse to answer)

Communication habits:

Each item includes the answer choices - (Several times a day, About once a day, 3-5 days a week, 1-2 days a week, Less often, I don't use social networking sites, Don't know, Refuse to answer, N/A)

How often do you.....

--Update your status on your social networking profile?

--"Like" or mark an item as a favorite on a contact's social networking profile?

--"Like" or mark a public page as a favorite, like an official page of a TV program, or a specific product or store, etc.?

--Comment on someone else's post?

--Share a link to a story or article you have seen online, to your profile page?

--Share a link to a story or article you have seen online, to a friend or other contact's profile page?

--"Like" or "recommend" content from other websites, like a news site, through page icons which link to your social networking site?

--Discover new items you would like to purchase, from either ads or branded content in your feed?

--Share photos on your profile page?

--Share a photo or link to a new item you have purchased?

--Share a photo or link to a new item you would like to purchase?

--Post information or share experiences about specific products?

--Participate in private or direct messaging?

--Participate in one-on-one or group chatting?

Demographic and Socioeconomic Characteristics (from Survey Monkey.com)

Are you male or female?

Male/Female

Which category below includes your age?

17 or younger/18-20/21-29/30-39/40-49/50-59/60+

What is the highest level of school you have completed/highest degree you have received?

Less than high school degree/High school degree or equivalent (e.g., GED)/Some college but no degree/Associate degree/Bachelor's degree/Graduate degree

Are you White, Black or African-American, American Indian or Alaskan Native, Asian, Native Hawaiian or other Pacific islander, or some other race?

White/Black or African-American/American Indian or Alaskan Native/Asian/Native Hawaiian or other Pacific Islander/From multiple races/Some other race/Don't Know/Refuse to Answer

What was your total income in 2014?

Less than $20,000/$20,000 to $34,999/$35,000 to $49,999/$50,000 to $74,999/$75,000 to $99,999/$100,000 to $149,999/$150,000 or more/Full-time student/Don't know/Refuse to answer

Which of the following categories best describes your employment status?

Employed, working 40 or more hours per week/Employed, working 1-39 hours per week/Not employed, looking for work/Not employed, NOT looking for work/Retired/Disabled, not able to work/Full-time student

Which of the following describes your current occupation?

Computer and Mathematical

Building and Grounds Cleaning and Maintenance

Arts, Design, Entertainment, Sports, and Media

Food Preparation and Serving-Related

Healthcare Support

Architecture and Engineering

Community and Social Service

Installation, Maintenance, and Repair

Life, Physical, and Social Science

Sales and Related

Construction and Extraction

Legal

Office and Administrative Support

Education, Training, and Library

Healthcare Practitioners and Technical

Protective Service

Business and Financial Operations

Farming, Fishing, and Forestry

Personal Care and Service

Transportation and Materials Moving

Other

Refuse to Answer

APPENDIX B

Recruitment scripts: (based on Dr. Cynthia Frisby's scripts)

SHORT TWITTER/SOCIAL MEDIA ANNOUNCEMENT

Univ. of Missouri J-School researchers are seeking participants for an important study on Innovative Behavior! https://www.surveymonkey.com/s/whatsnewinnovators

E-MAIL RECRUITMENT SCRIPT

I, Amy Roberts, a graduate student at the University of Missouri School of Journalism, would like to invite you to participate in a research study that focuses on innovative behavior. The study centers on assessments of several personality traits and social networking site use and habits.

Please help me spread the word, by making this survey available to associates, friends and family, and social media contacts who you think would be interested in participating in this research. Individuals must be 18 to participate in this study.

There are no foreseeable risks or discomfort that might occur as a result of taking part in this research project. Through your assistance, you are increasing knowledge about how individuals such as yourself gather information about new products and ideas, and how that information is diffused through social networking sites. Participants will complete an online survey that only takes a few minutes to complete. To protect your privacy, your name and/or email address will not be linked to your responses.

If you should have any questions about this research project, please feel free to contact me, Amy Roberts, by email at amrkt3@mail.missouri.edu. For additional information

regarding human participation in research, please contact the University of Missouri Campus Institutional Review Board Office at (573) 882-9585.

Please understand that your participation is voluntary. If the survey makes you uncomfortable in any way, you may discontinue your participation at any time without penalty.

You can access the survey at: https://www.surveymonkey.com/s/whatsnewinnovators

**Remember, it only takes a few minutes, and please pass on the link to others!

SUGGESTED FACEBOOK OR TWITTER POST FOR YOUR PAGE:

Univ. of Missouri J-School researchers are seeking participants for an important study on Innovative Behavior! https://www.surveymonkey.com/s/whatsnewinnovators

Thanks for your help!

Amy Roberts