

Uncertainty Reduction on Facebook and Computer Mediated Communication

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Abstract

This study examines how social media effects relationships and uncertainty reduction. Research was primarily concentrated on Facebook and romantic relationships. Uncertainty reduction theory and social information processing theory are examined in the light of new technologies and social networking sites. Five participants were interviewed individually by the researcher. Analysis was limited because of the number of participants and the limited amount of research and responses. However, new insights can still be reached through this research and used to create a new research with a wider base of participants. The terms “Facebook Official” and “Facebook Stalking” or “Facebook Creeping” were brought up in interviews by the participants that show how integrated Facebook and social media is in our relationships and uncertainty reduction strategies. It was also shown by participants that some use Facebook a huge amount of the time, while others say they have moved on to other social networks for their primary use, like Twitter and Instagram.

Introduction

Facebook is the number one social networking site (SNS) in the world today. Twitter and Pinterest follow Facebook as the second and third most popular (Osman 2012, Palmieri 2012 and Paradise 2012). Facebook has 1.25 billion active users per month, they have 945 million monthly active users who used Facebook mobile products as of December 31, 2013 and there are 757 million daily active users on average in December 2013 (Facebook Factsheet 2013). Computer-mediated communication is becoming more and more prevalent through the increase of technology and other social networking sites (SNSs). Despite this growing topic of research on computer-mediated communication (CMC) in the human communication field, there is lack of research. Not much has been accomplished because of the short time of its existence. Many researchers on this topic agree that future research still needs to be done and as of right now, there are not many research studies on this topic. It is difficult for the researching world to keep up with the growing technology, abundance of SNSs, and the increase of CMC in general (Antheunis 2012, Fox 2013, and Ledbetter 2011). It is therefore extremely important to update and keep up on research in this field in order to better understand how relationships develop and unfold online, as well as the transformation of computer-mediated communication and how people adapt to it over time.

Theories

Walther's social information processing theory (SIP) is being consistently used and adapted as research progresses and other communication theories are beginning to be viewed with a new technological lens and being adapted to use in CMC. Uncertainty reduction theory (URT) is a primary example of this as it is being consistently tied with SIP as new research begins to come out (Fox 2013).

Uncertainty Reduction Theory (URT)

URT is becoming a primary theory when researching CMC and online relationships. Uncertainty reduction is the increased knowledge of another person that provides increased discernment into how future communication with that person will turn out. URT, which was created by Charles Berger in 1975, states that uncertainty reduction is a person's primary concern when they meet someone new (Berger 2011). When an initial interaction isn't going the way that previous interactions have gone when meeting new people, we become unsettled and disturbed. If the new person is acting in an abnormal way, the conversation becomes more difficult to keep going and the interaction becomes draining and arduous (Berger 1986, Berger 2011, and Griffith 2013). Others in the field of communication argue that not everyone has uncertainty reduction as their primary goal in an initial interaction. Berger's response is that the primary goal of people when the stranger they are communicating with will be encountered in the future, when they will be provided with rewards, or when the stranger behaves in an abnormal manner. People reduce this uncertainty with certain non-verbal or verbal strategies. People introduce these strategies regularly, but most are unaware that they do this (Berger 1986, Berger 2011, Byron 2007 and Gudykunst 1995). Berger states that predictability is the opposite of uncertainty and as humans, we seek to find predictability in others in order to be comfortable around them. Some of the strategies for uncertainty reduction that Berger lists are verbal output, nonverbal warmth, self-disclosure, similarity, and shared communication networks (Berger 1986, Berger 2011 and Griffith 2013). Berger also states that the human being's need to reduce uncertainty might have been what led to certain traditions and norms in initial interactions. Most people have a certain routine they go through when they meet a new person. In the U.S., we shake hands and introduce ourselves. Most people ask "what do you do?" or "what do you

study?” as a preliminary question to begin to get to know the other person a little and reduce uncertainty (Berger 1986). Even though URT applies heavily to new relationships, it can be applied to relationships that are in varied stages as well. People are always seeking new information about others and wanting to get to know their friends or significant others better. This constant reduction of uncertainty helps people decide if they want to continue in the relationship they are currently in (Berger 1986).

Social Information Processing Theory (SIP)

SIP by Joseph Walther in 1992 is based on the verbal content of CMC. It states that people who meet online can develop a relationship that is just as meaningful and deep as a relationship that is cultivated through face-to-face communication. This idea was laughed at in the beginning. CMC was never thought to be a method in which to establish intimacy or cultivate a relationship. CMC was only seen as a way to give and receive information. It was thought that the lack of non-verbal cues made CMC a wasteland for cultivating relationships. CMC lacks things like facial expressions, body language, and tone of voice. Walther does not think this loss non-verbal cues hinders relationship development in CMC. He believes that when people are motivated, they can cultivate a relationship online. Uncertainty reduction theory supports SIP when they are studied together by saying that people make up for the lack of non-verbal cues by increasing the amount of verbal cues (Antheunis 2012, Byron 2007, Chan 2004, Griffith 2013, Hobman 2002, Ledbetter 2011, Palmieri 2012, Pratt 1999, Ramirez 2002, Tidwell 2002 and Walther 2005). According to Walther, CMC is much slower than face-to-face communication and therefore takes much longer to cultivate relationships; however, relationships cultivated through CMC, although slower, can be just as strong as face-to-face relationships (Griffith 2013).

SIP discusses how the exchange of information through text only communication is much slower than face-to-face communication. It does take a little longer to send a text message, have the other person receive it, think of how to respond and then reply. But text only communication can go on for a lot longer than face-to-face communication. My husband and I would text each other throughout the day, making conversations on topics last all day and throughout the next day. When communicating face-to-face, this cannot happen unless you quit everything else in your life to hang out with this person and talk to them all day. With text only communication, all day communication is possible and extremely realistic. It is a way to have almost constant communication. With more and more people owning smart phones, this is possible with SNSs as well.

Facebook

Research has consistently shown that online relationships can become just as strong as face to face relationships and that CMC can be a beneficial addition to current face to face relationships. Facebook is a primary contender of CMC between people today. The SNS Facebook is the most popular and lasting social networks. Facebook was created in 2004 and has steadily grown and kept itself prevalent throughout the decade. Despite some perceptions that Facebook is becoming less popular for the younger crowd, it is still the most popular SNS worldwide. Facebook has become a primary tool for people to keep in contact with friends both new and old. Instead of asking for someone's phone number, people now ask if that person has a Facebook. Users in Fox's qualitative study stated that by doing this, there is less rejection, versus asking for someone's phone number, which is considered more personal (Fox 2013).

Uncertainty Reduction in CMC

As media and technology increase, uncertainty reduction theory is always changing and morphing as it is being applied to new types of relationships. Uncertainty reduction in computer-mediated communication (CMC) is a newer phenomenon and one that more and more research is being done on. When speaking to someone through text based communication, non-verbal communication cannot be monitored and uncertainty reduction strategies are more difficult to put into place. A recent study compared uncertainty reduction strategies in both face-to-face communication and CMC. The researchers looked at CMC with a text-only format and CMC with a text and video format. The experiment used college students and paired students together who did not know each other. Certain student pairs were put in each of these situations and their communication and uncertainty reduction strategies were compared. The researchers were specifically looking at statements of verbal affection and if they increased in CMC because of the lack of non-verbal communication. No differences were found in both of the CMC groups, therefore they were merged together in the final analysis. There was significant data showing that there were an increase in verbal statement of affection in CMC versus face-to-face communication. This study proved that in CMC, an increase of verbal statements must be made in order to decrease uncertainty and make up for the lack of non-verbal cues in face-to-face communication. Many other studies have also shown that the lack of non-verbal communication in CMC does not affect the outcomes of the communication. Human beings instinctively make up for this by other means (Antheunis 2012, Ramirez 2002, Tidwell 2002, and Walther 2005).

In SNSs there are more ways to reduce uncertainty about another person other than asking that person directly. On SNSs, each person has their own profile where they can post photos, status updates, or pictures for their “friends” or “followers” to look at. Seeing the

activities of another person through their profile and what they post about themselves can reduce the uncertainty about that person (Fox 2013, Gibbs 2011 and Ramirez 2002). Facebook and many other SNSs enable you to check-in to a certain place where you are located. People don't even have to announce they are looking at someone's online information to reduce uncertainty. This is yet another way that others can reduce uncertainty about others. Knowing the places that are regular spots for someone can be a way to get to know them and reduce uncertainty. The popularity of "checking-in" has increased and it is now just another way to check up on others (Wang 2013). People can participate in the activity of looking at someone's profile anonymously. Things like "Googling" and "Facebook Stalking" are becoming regular terms in today's society. It is becoming natural to look someone up before going on a date with them, interviewing for a job, or even after you first meet someone in a face to face situation (Fox 2013, Gibbs 2011 and Ramirez 2002).

Many believe that CMC leads to greater self-disclosure. Because of the anonymity of the internet, people feel more at ease and less pressure to impress another person. They also feel like they have less of a chance of being rejected or ridiculed when they open up. Their non-verbal communication is not being judged and they can take their time to contemplate a proper response to the message. The communicator has a greater control over the environment and this has been shown to lead to greater self-disclosure and therefore, a greater certainty of the other person. This is especially true for a person who is socially anxious. The anonymity of CMC makes them feel less anxious and more likely to self-disclose (Tian 2011).

SIP discusses strategies to reduce uncertainty in CMC and uses points similar to URT. People can use extractive strategies to seek information about other people through CMC by communicating with third parties about the person in question. This has been done even before

SNSs with email and chat. SNSs have changed the face of this type of information seeking. People can now look at someone's profile and see what others have posted on their wall and have said about them. They can look at the interactions of that person and see photos that their friends have posted or tagged them in. It has been shown that people are more likely to believe something about a person if it was said by a third party. (Fox 2011 and Ramirez 2002).

Facebook is a primary tool in current CMC and deserves current research and experiments. It is important to see how uncertainty reduction is being used and applied in new relationships in CMC on Facebook.

Research Question 1:

Is Facebook the primary way in which participants reduce uncertainty about potential romantic partners?

Research Question 2:

What do participants look for on the Facebook page of potential romantic partners?

Methods

Ninety-seven college students from a Midwestern University were surveyed by the researcher. There were fifty-six females and forty-one males in this sample. In this sample there were nine freshman, nineteen sophomores, thirty-two juniors, thirty-five seniors, and two graduate students. The researcher visited four different classes in the Department of Communication and handed out surveys to those students who volunteered to take it. In two of the courses, students were offered five points of extra credit from their professor if they took the survey, but in the other two courses, no incentives were given. All students were surveyed in a classroom setting before their course began. The survey was completed anonymously. The

participant was asked six nominal questions on the first page of the survey and then asked to rate ten different statements on a five point likert scale that ranged from strongly agree to strongly disagree on the second page of the survey.

Results

The results of this survey showed significance in several aspects and through several different tests that were conducted with the data; including the t-test and ANOVA. Several findings were noteworthy within the frequency distribution as well.

T-Test

A t-test was run with the factor of sex and the choices being male and female. This factor was run against all questions with a scale. There were 41 males and 56 females that were surveyed. The statement, “When I am romantically interested in someone, I look on their Facebook profile to see if they’re romantically available” is at a significance level of 0.043. The statement, “When I meet someone I am attracted to, I look them up on Facebook when I get home” is at a significance level of 0.007. Females are significantly more likely to look someone up on Facebook to see if they’re romantically available than males are. Females are also more likely to look an attractive person up on Facebook after they meet them than males are.

Analysis of Variance (ANOVA)

An analysis of variance (ANOVA) test was run with the factor “How many times per day do you check Facebook?” against all questions with a scale. The choices for this question are “1-3 times”, “4-6 times”, “7-10 times”, “11-15 times”, and “15 + times”. Out of all the questions, two were found significant. The statement, “When I am romantically interested in someone, I look on their Facebook profile to see if they’re romantically available” is at a significance level of 0.004 with an F value of 4.197. The question, “When I meet someone I am attracted to, I look

them up on Facebook when I get home” is at a significance level of 0.025 with an F value of 2.936. The participants who check Facebook 11-15 times a day were more likely to strongly agree with both of these statements than if they checked Facebook a fewer amount of times per day. They participants who check Facebook 11-15 times a day were also more likely to strongly agree with both of these statements than the participants who check Facebook 15 or more times per day as well.

An ANOVA test was run with the factor “I identify myself as a: light Facebook user, medium Facebook user, or a heavy Facebook user” against all questions with a scale. Several questions’ results were found significant. The statement “When I am romantically interested in someone, I look them up on Facebook” is at a significance level of 0.008 with an F value at 5.044. The statement “I learn the most about a romantic partner by what they post on Facebook” was at a significance level of 0.014 with an F value at 4.502. The statement “When I am romantically interested in someone, I look on their Facebook profile to see if they’re romantically available” is at a significance level of 0.025 with an F value of 3.836. The statement “The pictures that a potential romantic partner posts are important to me when getting to know them” is at a significance level of 0.042 with an F value of 3.274. The statement, “What other people post on a potential romantic partner’s Facebook wall is important to me when getting to know them” is at a significance level of 0.038 with an F value of 3.376. The statement, “The photos that a potential romantic partner is tagged in on Facebook is important to me when getting to know them” is at a significance level of 0.021 and has an F value of 4.016. The statement, “When I meet someone I am attracted to, I look them up on Facebook when I get home” is at a significance level of 0.001 with an F value of 7.289. Participants who identified themselves as

heavy Facebook users were more likely to strongly agree with the statements than medium or light Facebook users.

Frequency Distribution

Frequency distribution was run on all questions with a scale. Out of all the participants, ninety-seven were valid and zero were missing. Most participants agreed or strongly agreed with the statement, “When I am romantically interested in someone, I look them up on Facebook”. The results showed that 40.2% of the participants strongly agreed with the statement and 42.3% agreed with the statement. The mean for this statement was 1.8763. Out of all the participants, 25.8% strongly agreed with the statement, “When I am romantically interested in someone, I look on their Facebook profile to see if they’re romantically available” and 46.4% agreed with the statement. The mean for this statement was 2.1753. Most participants agreed or strongly agreed with the statement, “When I meet someone I am attracted to, I look them up on Facebook when I get home”. Out of all the participants, 23.7% strongly agreed with this statement and 38.1% agreed with the statement. The mean for this statement was 2.4227.

Most participants were neutral or disagreed with the statement, “A potential romantic partner’s ‘likes’ on Facebook are important to me when getting to know them”. Out of all the participants, 26.8% were neutral and 29.9% disagreed with this statement. The mean for this statement was 3.3711. Most participants agreed with the statement, “The pictures that a potential romantic partner posts are important to me when getting to know them”. Out of all the participants, 40.2% agreed with the statement while 26.8% were neutral. The mean for this statement was 2.7113. This shows that a higher majority of people find pictures important when getting to know a potential romantic partner than people who find ‘likes’ important.

Discussion

The Midwestern University that was used for this research has more than 7400 students enrolled; however, only 97 students were surveyed. This is a significantly low number compared to the overall student population. The sample size was not even 5% of the student population, which would be 370 students. A significantly larger sample size of students would have to be surveyed in order to validate the research being done. The male to female distribution was 41 to 56, which wasn't a bad distribution, but it could have been better. The classes of students were not distributed well. There were more juniors and seniors that were surveyed and not enough freshman, sophomores, or graduate students were surveyed. Overall, 9 freshmen, 19 sophomores, 32 juniors, 35 seniors, and 2 graduate students were surveyed. This distribution could have been better. This may have been a reason why an ANOVA run with this factor did not show any significant results.

Future research should ask participants whether or not they have the Facebook application on their phone. This can contribute to how often they check their account during the day. Although there was not a "comments" section on the survey, one participant made a comment by the question asking how many times per day he checked Facebook stating "I scroll through the app on my phone a lot". Asking participants whether or not they own the app and use it, could contribute to how often they check it and how often they look others up on Facebook.

Another "comment" that was made at the survey was "I'm married!!!" at the very bottom. This particular participant had chosen the "strongly disagree" option for all of the likert scale questions on the survey. This made the researcher realize that marital status does play a part in this type of research and should be taken into account in the future.

During the distribution of surveys, some comments from the participants were heard by the researcher. Several participants stated that their answers would have been completely different, or more interesting if the research had focused on a different social network such as Twitter. Future research should take into account other social media sites and how they play a part in the uncertainty reduction of potential romantic partners.

References:

- Antheunis, L. Marjolijn, Schouten, P. Alexander, Valkenburg, M. Patti and Peter, Jochen. Interactive uncertainty reduction strategies and verbal affection in computer-mediated communication. (2012). *Communication Research*, 39(6), 757-780.
- Berger, Charles. From Explanation to Application (2011). *Journal of Applied Communication Research*, 39(2), 214-222.
- Berger, Charles. Uncertain Outcome Values in Predicted Relationships Uncertainty Reduction Theory Then and Now (1986). *Human Communication Research*, 13(1), 34-38.
- Byron, Kristin and Baldrige, David C. E-Mail Recipients' Impressions of Senders' Likability: The Interactive Effect of Nonverbal Cues and Recipients' Personality (2007). *Journal of Business Communication*, 44(2), 137-160.
- Chan, K.-S., Darius, & Cheng, H.-L., Grand. (2004). A comparison of offline and online friendship qualities at different stages of relationship development. *Journal of Social and Personal Relationships*.
- Facebook Statistics 2013. [Accessed March 2, 2014]. Available from:
<https://newsroom.fb.com/key-Facts>
- Fox, Jesse, Warber, M. Katie, & Makstaller, C. Dana. (2013). The role of Facebook in romantic relationship development: An exploration of Knapp's relational stage model. *Journal of Social and Personal Relationships*, 30(6), 771.

Gibbs, L. Jennifer, Ellison, B. Nicole, and Lai, Chih-Hui. First comes love, then comes google: An investigation of uncertainty reduction strategies and self-disclosure in online dating.

(2011). *Communication Research*, 38(1), 70-100.

Griffin, Em. (2012). A first look at communication theory (8th Ed.) (pp. 125-137, pp. 138-150). New York, New York. McGraw Hill.

Gudykunst, William. (1995). Watershed Research Traditions in Human Communication Theory.

Cushman, P. Donald, Kova, Branislav. Watershed Research Conditions in Human Communication Theory (pp. 67-69). Retrieved from Google Books.

Hobman, E.V. The expression of conflict in computer-mediated and face-to-face groups (2002). *Small Group Research*, 33(4), 439-465.

Ledbetter, M. Andrew, Mazer, P. Joseph, DeGroot, M. Jocelyn, Meyer, R. Kevin, Mao, Yuping, and Swafford, Brian. Attitudes toward online social connection and self-disclosure as predictors of Facebook communication and relational closeness. (2011). *Communication Research*, 38(1), 27-53.

Osman, Andrew, Wardle, Andrew, and Caesar Richard. Online professionalism and Facebook – Falling through the generation gap (2012). *Medical Teacher*, 34(8), 549-556.

Palmieri, Cynthia, Prestano, Kristen, Gandley, Rosalie, Overton, Emily and Zhang, Qin. The Facebook Phenomenon: Online Self-Disclosure and Uncertainty Reduction (2012). *China Media Research*, 8(1), 48-53.

Paradise, Angela. Sullivan, Meghan. (In)Visible Threats? The Third-Person Effect

In Perceptions of the Influence of Facebook (2012). *CyberPsychology, Behavior & Social Networking*, 15(1), 55-60.

Pratt, Laurie, Wiseman, Richard L, Cody, Michael J and Wendt, Pamela F. Interrogative strategies and information exchange in computer-mediated communication (1999). *Communication Quarterly*, 47(1), 46-66.

Ramirez, A. Information-seeking strategies, uncertainty, and computer-mediated communication (2002). *Human Communication Research*, 28(2), 213-228.

Tian, Qing. Social Anxiety, Motivation, Self-Disclosure, and Computer-Mediated Friendship: A Path Analysis of the Social Interaction in the Blogosphere (2011). *Communication Research*, 20(2), 237-260.

Tidwell, Lisa Collins, Walther, Joseph B. Computer-Mediated Communication Effects on Disclosure, Impressions, and Interpersonal Evaluations: Getting to Know One Another a Bit at a Time (2002). *Human Communication Research*, 28(3), 317-345.

Walther, Joseph, Loh, Tracey, and Granka, Laura. Let Me Count the Ways: The Interchange of Verbal and Nonverbal Cues in Computer-Mediated and Face-to-Face Affinity (2005). *The Journal of Language and Social Psychology*, 24(1), 36-65.

Wang, Sharon Shaojung and Stefanone, Michael A. Showing Off? Human Mobility and the Interplay of Traits, Self-Disclosure, and Facebook Check-Ins (2013). *Social Science Computer Review*, 31(4), 437-457.