

Length Matters: Message Metrics that Result in Higher Levels of Perceived Partner Responsiveness and Changes in Intimacy as Friends Communicate through Social Network Sites

Linda Kramer Freeman & Jason Brinkley

Abstract

This study focuses on how young adults enact their relationships in public through self-disclosing interactions on Facebook. A Facebook self-disclosure status update, along with as many as three corresponding response comments, was copied by each of 271 participants from their own Facebook Wall, and pasted to an online survey. Status update and response comments contain characters such as letters, numbers, and symbols to express meaning. Seven textual measures were used to quantify the content of these messages; one such measure was a count of the number of characters contained in each response. Results show message length is associated with perceived partner responsiveness and feelings of increased intimacy with those who reply to one's status update with a response comment. Women, and close

Linda Kramer Freeman is an Assistant Professor at the School of Communication, East Carolina University, Greenville, North Carolina. Jason Brinkley is an Assistant Professor in East Carolina University's Department of Biostatistics. Correspondence can be directed to lindafreeman808@gmail.com.

friends and family post longer messages. The outward appearance of a message matters for the perception of responsive communication on Facebook.

Social network sites contain important information about how men and women are interacting with each other in the burgeoning world of computer-mediated communication. Some scholars claim that self-disclosures on social network sites are mainly superficial and the comments that respond to the self-disclosures are merely mirrors for mutual narcissism (Buffardi & Campbell, 2008; Mehdizadeh, 2010). Others have found that social network sites are used for social interaction among friends with whom the discloser has a face-to-face relationship offline, for the purpose of offline relationship maintenance and for social capital building and maintenance (Pempek, Yermolayeva, & Calvert, 2009; Ellison, Steinfeld, & Lampe, 2007). As social network sites such as Facebook continue to grow in popularity, it is worthwhile to understand how relationships are impacted as a result of communicating online.

Researchers have studied communication on Facebook to determine how social network sites work, why social network sites are so compelling, and whether communication itself has fundamentally changed. For example, a study of undergraduates found that students used Facebook 30 minutes throughout the day as part of their daily routine, communicated on Facebook using a one-to-many style, and used Facebook for social interaction, primarily with friends with whom the students had a pre-established relationship offline, such as college friends and hometown friends, with content referring to inside jokes, catching up, or making plans to get together (Pempek, Yermolayeva, & Calvert, 2009). The tone of responses to self-disclosures influenced an individual's self-esteem and overall well-being (Valkenburg, Peter, & Schouten, 2006). Low and moderate, but not high, amounts of self-disclosure predicted social connection (Ledbetter et al., 2007). But little research has focused on the specific, quantifiable characteristics of effective Facebook messages.

It may be fruitful to explore self-disclosure status updates and responses from friends in tangible, reproducible, non-subjective terms. Quantitative details of messages may give a succinct, yet big picture view of what is happening online, and may help researchers to add

insight into why individual participants perceive their interactions to be meaningful. Perceived Partner Responsiveness (PPR) is defined as the extent to which the self-discloser feels understood, validated, and cared for by the responder in an interaction (Reis, Clark, & Holmes, 2004; Reis & Shaver, 1988). The current study first assesses self-disclosers' perceptions about the response types that they rate highest on PPR and change in intimacy. Second, in a quantification of textual message metrics in broad strokes, analysis is performed on the content of status updates and the responses associated with the statuses to determine which message characteristics are most likely to increase Perceived Partner Responsiveness (PPR) when emerging adults post self-disclosure status updates. The purpose of the study is to find common characteristics of messages that make a positive difference to participants who post self-disclosures online to their social networks.

Self-Disclosure, Perceived Partner Responsiveness, and Intimacy

Emerging adulthood is a time when young people seek intimate relationships with friends and romantic partners, generally the ages between 18 and 25 (Arnett, 2000). For emerging adults, self-disclosure has become a public act on social network sites such as Facebook (Manago, Taylor, & Greenfield, 2012). A self-disclosure presents personal emotions and information that others would not have known from other sources (Jourard & Lasakow, 1958; Altman & Taylor, 1973; Prager, 1995). When interaction participants reveal deeper, more personal aspects of themselves through self-disclosure, and when they express feelings and vulnerabilities, they perceive their interactions to be more intimate (Lippert & Prager, 2001).

Buhrmester & Prager (1995) found that adolescents and emerging adults develop and strengthen intimacy by social external feedback from others. Intimacy is a basic human need, conducive to psychological health; we need the social support of others (Baumeister & Leary, 1995; Prager, 1995). Intimacy is defined as feelings of emotional rapport, social support, empathic understanding, emotional acceptance, responsive communication, trust, attachment security, closeness, and sense of belonging (Reis & Shaver, 2004; Reis & Shaver, 1988). Understanding is the cognitive component of PPR, a feeling that the responder has perceived the discloser's inner self, com-

prehends the facts, and is appropriately cognizant of the discloser's beliefs, needs, goals and circumstances; validation is the feeling that the responder accepts, respects, and values the discloser; feeling cared for implies that the self-discloser experiences liking, warmth, affection and support from the responder (Reis & Patrick, 1996). PPR has been identified as a mediator of the relationship between self-disclosure and intimacy in face-to-face empirical studies (Laurenceau, Barrett, & Pietromonaco, 1998; Laurenceau, Barrett, & Rovine, 2005). Intimacy is produced through a process of communication consisting of self-presentation through a self-disclosure and the interpretation and perception of the response from the recipient of the self-disclosure; individuals thus work together to produce intimacy (Reis & Shaver).

H1: PPR is positively correlated with Change in Intimacy.

Facebook Self-Disclosure, Response Comments or Likes, and Intimacy

Walther's (1992) social information processing theory provides a framework for understanding how Facebook status updates and responses can facilitate intimate social interactions. Social information processing theory posits that people use computer-mediated communication to meet their needs by using any tools that are available. Although online communication lacks the immediacy and nonverbal communication found in face-to-face interaction, on Facebook the user may manipulate the characters on the keyboard and Facebook status update functions to meet needs for self-disclosure, response, perceived partner responsiveness, and intimacy.

On Facebook, responses to a status update can take many forms. A responder can click the "like" button to acknowledge a post. The name of the person who "liked" the post is then displayed on the self-discloser's wall. A more active response is a "comment" in which a responder posts a text-based message that appears in a discussion space (thread) underneath the initial self-disclosure. Consistent with theories of self-disclosure and partner responsiveness (Jourard, 1959; Altman & Taylor, 1973; Prager, 1995; Reis & Shaver, 1988), reciprocity of self-disclosures or sensitive responses that indicate understanding, validation, and caring are predicted to increase intimacy more than "like" or other comments.

H2: Responder's self-disclosure response will predict greater PPR to the self-discloser of a status update than "like" or a non-self-disclosing comment.

The expression of personal information and vulnerable emotions from the partner as a reciprocation of the self-discloser's similarly personally revealing status update constitutes an intimate interaction (Lippert & Prager, 2001). Deep communication between two people result in an increase in intimacy in face-to-face communication, and the same result should occur on Facebook. Thus a self-disclosure response should be associated with a greater increase in intimacy than either "like" or some other comment.

H3: Responder's response in the form of a self-disclosure will predict higher level of Change in Intimacy than "like" or a non-self-disclosing comment.

Message Metrics

Social information processing theory (Walther, 1995) suggests that users of mediated communication use the tools that are available to meet their needs. Therefore, following social information processing theory, on Facebook, responders to a self-disclosure status update may construct their replies using available keyboard symbols to express the components of understanding, validation and caring that face-to-face partners express by being immediately present with one another, communicating the components of PPR. In addition to words, Facebook responders can use, for example, exclamation points and other non-word symbols to convey emotions, word content to convey information, and question marks to encourage further interaction. Message metrics can measure character strokes, which include combinations of keystrokes consisting of non-words, words and/or symbols. These keystrokes may be associated with impact in terms of PPR. Also, important relationships associated with higher PPR, such as gender differences and relationship type differences in PPR may be identified with an analysis of message metrics.

Gender

Gender differences have been extensively studied in face-to-face communication. Gender differences have been found in the inti-

macy of adolescent and adult friendships with women tending to experience greater intimacy than men (Berndt, 1982; Reisman, 1990; Senchak & Leonard, 1992; Sherrod, 1989; Youniss & Haynie, 1992). When the target of a self-disclosure is someone with whom women share a close relationship (for example, a friend, parent, or spouse), women disclose more than men (Dindia & Allen, 1992). Women discuss intimate topics more frequently and in greater depth than men (Aries & Johnson, 1983; Buhrke & Fuqua, 1987; Caldwell & Peplau, 1982; Dolgin & Minowa, 1997; Petronio, 2002). When conversing with others women may be seeking emotional, expressive talk to create or maintain intimacy, while men may be more likely to be conversing for functional, instrumental, or task oriented reasons (Wood, 2000), but these gender differences may be quite small (Burlinson, 2003). McAdams (1983) found that women manifest higher levels of communal behavior that is associated with cooperative, relational activities, with more frequent thoughts of interpersonal, relational communication, than do men. The feminine communication style (Stephen & Harrison, 1985) consists of greater emotional sensitivity, sympathy, and consideration than the masculine communication style, which tends to show more restraint and less expressiveness and openness (Rubin & Shenker, 1978). The association between self-disclosure and intimacy is stronger for women than for men (Lippert & Prager, 2001; Canary & Emmers-Sommer, 1997; Parks & Floyd, 1996).

Using Facebook to explore communication on social network sites, gender differences found in face-to-face contexts may also hold true for Facebook self-disclosures. Offline behaviors may be reflected online, thus women's advantage in communicating offline may be naturally extended to the context of Facebook. In studies of online relationships, women had more Facebook friends and spent more time interacting with their Facebook friends than men (Acar, 2008; Sheldon, 2008). On the Internet, women's self-disclosures were more intimate than men's self-disclosures (Peter, Valkenburg & Schouten, 2005). Women were found to self-disclose on social network sites on a wider variety of topics dealing with close personal relationships than men (Bond, 2009). Moreover, women use the Internet for communication on social network sites more than men, while men use the Internet more broadly, for entertainment and games (Joiner et al.,

2012). Message metrics may offer a clue as to how gender differences manifest on Facebook.

Verbal content can express emotional meaning (Walther, 1996). Therefore, in the context of Facebook, the friend's response to a self-disclosure status update may be related to the type of relationship, taking into account the shared history with the discloser. Close friends' responses may be associated with greater increases in intimacy than responses from those who are more relationally distant to the self-discloser. Close relationships include parents and family members, and one's romantic partner or best friends. The following research question explores the message metrics associated with increased PPR:

RQ1: What characteristics of message metrics are related to PPR?

Method

Participants

In an online survey, participants self-reported a status update and up to three actual responses (R1, R2, and R3 respectively) to the status update as part of a larger study. The data consists of 242 observations (incomplete observations removed) from a sample of 271 undergraduate students from a large Midwestern university, that consist of a main Facebook status update as well as up to three responses to the original post. In addition there are perception metrics R1-PPR, R2-PPR, and R3-PPR that measure Perceived Partner Responsiveness, or perceived impact of the response in terms of understanding, validation, and caring, of each follow-up message by the original message posting individual. The purpose of the analysis is to examine self-discloser's perceptions of the responses to their status updates and to see which quantifiable textual measures associate with the perception metrics.

The ages of the 167 women and 104 men who participated ranged from 18 years to 45 years ($M = 22.18$). The sample included 84% Caucasian, 12% Asian, and 4% African American participants. The average number of friends per participant was 502.

Measures

Perceived Partner Responsiveness. The PPR variable is a combination of the three components, understanding, validation and caring, based

on Laurenceau, Barrett, and Pietramonico's (1998) PPR measure. The items were assessed using a 5-point Likert scale, with 1 (not much) and 5 (a great deal). Participants were asked to answer questions about the quality of the responses they received to their self-disclosure status update. Example from the scale: "Please indicate your level of agreement with the following statement: I feel understood by this person." The PPR scale had Cronbach's alpha of .89. The scale mean was 3.84 (SD = 1.04).

Change in Intimacy. Participants were asked to assess their feelings about each respondent after receiving the response to the self-disclosing status update. The scale was based on components of intimacy described by Reis and Patrick (1996). Participants were asked to rate their change in feelings, as follows: "What is your feeling about the quality of your relationship with this person after receiving this response?" A 5-point Likert scale ranging from 1 (less) to 5 (more) was then displayed with the items: "intimacy", "trust", "closeness", and "reliance". The 4-item scale achieved Cronbach's alpha of .84. The scale mean was 3.09 (SD = 0.56).

Results

For the quantitative data analysis, descriptive analysis, bivariate analysis, and analysis of variance were used. After inspecting the data for distribution and completeness, variables with missing data were removed from subsequent analysis. Bivariate analysis using a combination of Pearson correlations and ANOVA tests were used to observe the relationship between PPR and Change in Intimacy. For status update and response character metric analysis, nonparametric correlations were performed using Spearman's rho, ρ . Group differences were tested using a traditional t-test where the groups were balance (with respect to sample size) and a nonparametric Wilcoxon test when groups were unbalanced. The analyses for this paper were generated using SPSS version 20, and SAS software version 9.3.

H1: PPR is positively correlated with Change in Intimacy.

As expected, H1 is supported by the data with significant strong positive correlations between PPR and Change in Intimacy. Participants perceived a modest amount of responsiveness from their part-

ners indicating that the communication of understanding, validation and caring occurs on Facebook. Correlation magnitude between the variables PPR and Change in Intimacy for R1 was $r = 0.42$, $p < .001$; R2: $r = 0.50$, $p < .001$; R3: $r = 0.40$, $p < .001$.

H2: Partner's self-disclosure response will predict greater PPR to the self-discloser of a status update than "like" or a non-self-disclosing comment.

Table 1 displays the means, which indicate self-disclosure responses were higher on both PPR and Change in Intimacy. Self disclosure had the highest mean, followed by "like", which was in turn followed by "other comment." ANOVA was performed to determine if there was a difference between the three types of message response types on Perceived Partner Responsiveness. The omnibus test of the main effect of response type on PPR was significant for R1 and R2, as follows: R1: $F(2, 256) = 7.33$, $p = .001$, $\eta^2 = .054$; R2: $F(2, 238) = 5.33$, $p = .005$, $\eta^2 = .043$. The omnibus test of the main effect of response type on PPR was not significant for R3: $F(2, 202) = 2.939$, $p = .055$, $\eta^2 = .028$. Post hoc Tukey analysis was used to further study the differences in response type found in R1 and R2. Tukey analysis for R2 indicated self-disclosure was rated higher on PPR than "like and/or "other comment" (Table 1). On Facebook, disclosers are more likely to perceive their partners as responsive when the partner responds to a self-disclosure status update with a self-disclosure in return.

Table 1. Mean Differences for Response Type on Change in Intimacy and PPR

Response Type	Change in Intimacy M (SD)	PPR M (SD)	Change in Intimacy N	PPR N
Self-Disclosure	3.39 ^a (0.56)	4.17 ^a (0.90)	52	52
"Like"	3.13 (0.76)	3.68 (1.23)	35	36
Other comment	3.04 ^a (0.68)	3.60 ^a (1.13)	151	153

Note. PPR = Perceived Partner Responsiveness. a = Subscripts indicate Tukey post hoc test found significant mean difference at $p < .05$ level of significance.

H3: Partner's response in the form of a self-disclosure will predict higher level of Change in Intimacy than "like" or a non-self-disclosing comment.

ANOVA indicated the response type also had a significant effect on Change in Intimacy, supporting H3. Next, post hoc analysis was conducted, anticipating a significant mean difference between self-disclosure and at least one of the other two possible choices, "like", and/or "other comment" on Change in Intimacy. The omnibus test of the main effect of response type on Change in Intimacy was significant for all three respondents to the self-disclosure status update, R1: $F(2, 250) = 5.02, p = .007, \eta^2 = .039$; R2: $F(2, 235) = 5.51, p = .005, \eta^2 = .045$; R3: $F(2, 202) = 3.52, p = .032, \eta^2 = .034$.

Furthermore, post hoc Tukey HSC analysis indicated a significant mean difference between the self-disclosure response type and the "other comment" response type on Change in Intimacy. Post hoc analysis did not find "like" significantly different from the other two responses. The mean differences between the self-disclosure responses and the other responses can be found in Table 1. In summary, the self-disclosure response type, which is significantly different from "other comment" response type, has the highest mean on Change in Intimacy for response type. When participants receive a self-disclosure response to a self-disclosure status update, on average, there is a positive change in intimacy.

Self-Disclosure Facebook Status Update and Response Metrics

In examining self-disclosure Facebook status updates (Status) and responses to the status updates (Comment), seven basic measures are listed below. For subsequent tables, abbreviations shown in parentheses will be used as follows:

1. Status/Comment length – number of characters (#Char)
2. Status/Comment letter length – number of letters (#Lett)
3. Status/Comment other length – number of non-letters (#No-Lt)
4. Status/Comment words – number of words (#Word)
5. Status/Comment excl – number of exclamation points (#Excl)
6. Status/Comment quest – number of question marks (#Ques)
7. Status/Comment caps – number of capital letters (#Caps)

Table 2. Status Update Frequency Table (N= 242)

	Mean	Std Dev	Min	Median	Max
1. Status_#Char	80	57	7	64	255
2. Status_#Lett	62	45	6	49	204
3. Status_#No-Lt	18	13	0	15	66
4. Status_#Word	15	11	1	12	51
5. Status_#Excl	1	3	0	0	33
6. Status_#Ques	0	0	0	0	2
7. Status_#Caps	4	8	0	2	72

Note. Only status updates with less than 256 characters were used in this analysis.

Table 2 displays the frequency counts for the basic measures of the self-disclosure status updates in terms of sample mean, standard deviation, minimum, median, and maximum value. Variation in status update is notable especially in overall length, number of exclamation points, and number of caps. Longer statuses may convey more information, while higher numbers of exclamation points and capital letters may emphasize strong emotions. It is unlikely that there are more than a few instances where a capitalization is used in a way consistent with general writing (proper names or beginning of sentences).

The associations between these metrics (in order) in original Facebook self-disclosure status updates result in the correlations found in Table 3. There is strong correlation between all the length-based metrics. The association between exclamation points and the length metrics are weak for the original status update post. The association between question marks and the length metrics are significant but are generally weak. There is a stronger correlation between the caps length and the other metrics. There is a significant association between number of caps used and number of exclamation points, possibly indicating strong emphasis of emotional content.

Table 3. Status Update Metrics

	#Char	#Lett	#No-Lt	#Word	#Excl	#Ques	#Caps
#Char							
#Lett	1.00***						
#No-Lt	0.96***	0.93***					
#Word	0.98***	0.97***	0.96***				
#Excl	0.07	0.04	0.15*	0.05			
#Ques	0.17**	0.17**	0.18**	0.18**	-0.07		
#Caps	0.29***	0.28***	0.32***	0.29***	0.21**	0.09	

Note. Nonparametric associations, Spearman's ρ .

* $p < .05$; ** $p < .01$; *** $p < .001$

Examining the same metrics across the three responses (R1, R2, R3), Table 4 shows a similar pattern of associations. For both status updates and the response comments, the high correlations between the length metrics indicate that only a single metric for the “length” of a status or response is needed. In other words, counting the number of characters in total reveals the same information as more exact segmentations into letters, words, and non-letter characters. Messages posted by the responders have more important associations between the length of the message and other message metrics than what is seen in the original status update post: The relationship between exclamation points or question marks and length may be stronger in the responses than in the original post. Caps use seems to be more strongly associated with length in the responses than in the original post.

Table 4. Response Metrics

		#Lett	#No-Lt	#Word	#Excl	#Ques	#Caps
#Char	R1	0.99***	0.96***	0.97***	0.16*	0.23***	0.45***
	R2	1.00***	0.97***	0.98***	0.28***	0.21***	0.60***
	R3	1.00***	0.97***	0.99***	0.38***	0.27***	0.64***
#Lett	R1		0.93***	0.96***	0.11	0.23***	.43***
	R2		0.96***	0.98***	0.26***	0.22***	0.59***
	R3		0.95***	0.99***	0.35***	0.27***	0.62***
#No-Lt	R1			0.95***	0.27***	0.21***	0.48***
	R2			0.98***	0.33***	0.21***	0.60***
	R3			0.96***	0.44***	0.26***	0.66***
#Word	R1				0.13**	0.19**	0.45***
	R2				0.25***	0.22***	0.59***
	R3				0.35***	0.27***	0.63***
#Excl	R1					-0.07	0.27***
	R2					-0.05	0.30***
	R3					0.09	0.41***
#Ques	R1						-0.03
	R2						0.01
	R3						0.15*

Note. Nonparametric associations, Spearman's ρ .

R1 = Response 1, R2 = Response 2, R3 = Response 3

* $p < .05$; ** $p < .01$; *** $p < .001$.

Examining the Responses: R1-PPR, R2-PPR and R3-PPR

The impact of the three responses can be viewed in a temporal format as R1, then R2, then R3, respectively. Table 5 shows the correlations between PPR and the response metrics.

R1-PPR

In general R1-PPR has very weak correlation with the metrics on Response 1 with the exception of exclamation points. Table 6 shows the responses with two or more exclamation points scored significantly higher on R1-PPR than those with 1 or less.

A t-test shows that the difference in R1-PPR is significant between the two groups ($p = 0.018$) which implies that there are higher

scores for individuals whose Response 1's have 2 or more exclamation points.

Table 5. Correlations between PPR and Response Metrics

	#Char	#Lett	#No- Lt	#Word	#Excl	#Ques	#Caps
R1- PPR	0.12	0.11	0.11	0.09	0.16*	-0.04	0.10
R2- PPR	0.16*	0.16*	0.17*	0.15*	0.08	0.14*	0.08
R3- PPR	0.22**	0.21**	0.22**	0.20**	0.17*	0.00	0.19**

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 6. Exclamation Points: Means and Standard Deviations – R1-PPR

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
1 or less	139	3.82	1.01	0.09	3.65	3.99
2 or more	97	4.11	0.85	0.09	3.94	4.28

R2-PPR

The associations with R2-PPR scores tend to rely on length of response and use of question marks. There is a difference in mean R2-PPR scores between those responses with question marks and those without question marks, Wilcoxon $p = 0.003$, displayed in Table 7.

The linear effect between R2 message length and R2-PPR is weak, but there is an interesting threshold effect. Figure 1 illustrates this effect by showing that when the response has at least approximately 100 characters, the PPR rating is generally 4 or higher.

R3-PPR

In Response 3, all metrics except question marks are significantly associated with R3-PPR. Additionally, exclamation marks in Response 2 also show an association with R3-PPR, Spearman's $\rho = 0.18$, $p < .05$. It is the first time that we see an association in satisfaction on

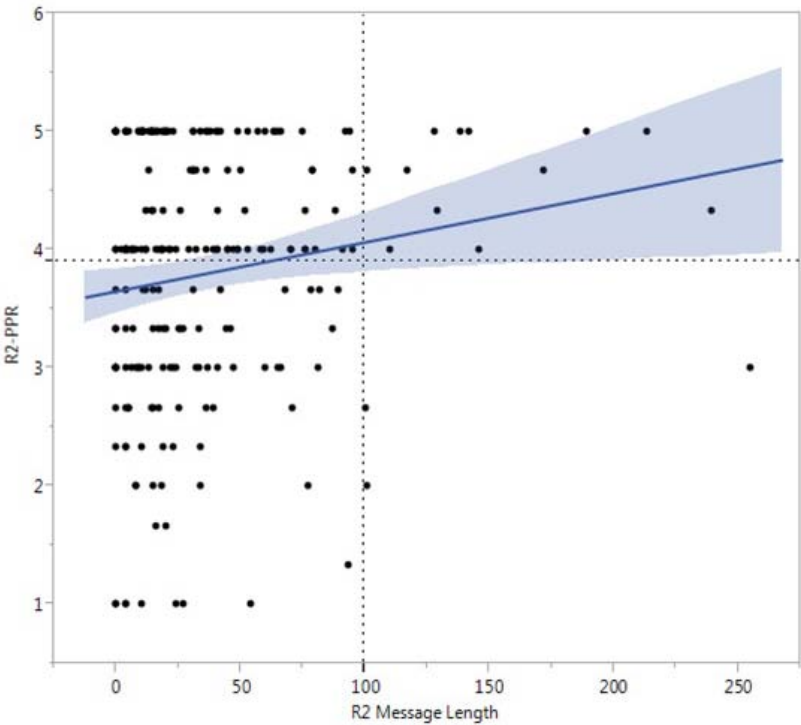


Figure 1. Threshold Effect for Message Length and R2-PPR

a metric related to a response that has something to do with the prior response. Strong emphasis in the second response to a self-disclosure status update is related to the third response’s PPR, perhaps showing that responses become more meaningful over time as subsequent comments and elaborations occur. The association between exclamation points in Response 3 and R3-PPR is NOT significant after adjusting for the number of exclamation points in Response 2 ($p = 0.135$).

Table 7. Question Marks: Means and Standard Deviations – R2-PPR

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
No ?	202	3.76	1.08	0.08	3.61	3.91
At least one ?	17	4.35	0.66	0.16	4.01	4.69

In general the length of the message in Response 3 has a stronger association to R3-PPR than the length of the message of Response 2 has to R2-PPR, which is stronger than the association between length of the message of Response 1 to R1-PPR. Therefore the association between the perceived value and length of response increases as we move farther down the pipeline of responses. Thus Response 3 message length is the most strongly related to PPR.

Gender Differences

Table 8 displays the sample means and standard deviations of the PPR metrics for the total sample and stratified by gender. In general, women have higher scores on these metrics versus men and testing reveals significantly higher scores (t-test $p = 0.005$) for R2-PPR values. In addition, Table 9 shows women received longer response messages to their status updates than men, and the differences were significant (using t-tests) for R1-Length ($p = 0.005$) and R3-Length ($p = 0.015$).

Table 8. PPR for the Sample and by Gender, Means and Standard Deviations

	Men			Women			All		
	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
R1-PPR	82	3.87	0.99	151	3.98	0.94	233	3.94	0.96
R2-PPR	77	3.53	1.06	139	3.96	1.03	216	3.81	1.06
R3-PPR	64	3.61	1.11	121	3.78	1.13	185	3.72	1.12

Table 9. Differences in Response Lengths by Gender

	Men (n = 88) Mean (Std. Dev)	Women (n = 151) Mean (Std. Dev)	p-value
R1-Length	30.31 (35.18)	44.83 (43.40)	0.005
R2-Length	28.63 (35.64)	37.27 (44.28)	0.100
R3-Length	22.90 (32.32)	35.70 (47.90)	0.015

Relationship Type

When the message chain involves parents, best friends and/or romantic partners, the PPR is higher for all responses, R1, R2, and R3 respectively, as shown in Table 10. Close relationships are reinforced from interactions on Facebook.

Table 10. Relationship Type and PPR

	Parent, Best Friend, Romantic Partner		NOT Parent, Best Friend, Romantic Partner	
	Mean	Std. Dev.	Mean	Std. Dev.
R1-PPR	4.22	0.84	3.74	0.99
R2-PPR	4.22	0.90	3.50	1.08
R3-PPR	4.13	0.93	3.37	1.15

Note. t-test p-value for all three is <.001

Discussion

Participants perceived that responses to their self-disclosure status updates demonstrated understanding, validation, and caring. Longer message length of response ranked high in PPR, regardless of whether the characters were letters, all-caps, non-words, chat talk, or a series of exclamation points. This study lends empirical support to the social information processing theory (Walther, 1995) because individuals utilized the available keyboard techniques to express emotions, ask questions, and provide content in their responses that proved meaningful to the self-discloser of the initial status update. Messages that contained question marks were highly rated in PPR,

perhaps because questions from a responder prompt the discloser to further elaborate thoughts and/or feelings, consistent with theories of supportive communication (Burlinson, 2009).

Participants indicated self-disclosing responses rated more highly than “like” or other comments for PPR and increasing intimacy, and message metric examination showed that longer responses were perceived to be more intimate and responsive than shorter responses. Certainly longer messages may contain more responsive content, whether emotional or informational. Arguably, it may take more time and attention to construct a longer response, which also may be a factor in rating higher in PPR. In emerging adulthood, identity is being constructed with the help of feedback from others (Arnett, 2000), and when the feedback is from close others who take the time to construct a lengthier reply on Facebook, it is generally well-received by the self-discloser.

Long messages may “look” responsive. Longer messages may reference many topics beyond the initial self-disclosure, may elaborate the topic of discussion, and may simply have the physical appearance on the Facebook page as containing more time, support, effort, or caring. In contrast, messages that were short were generally rated lower in PPR. Norms of social network sites may regulate interactions so that most people disclose at a modest level, refraining from revealing one’s own or others’ vulnerabilities (Ledbetter et al., 2011). Without verbal or facial cues, a short response may be interpreted as mundane at best, or negative, inappropriate, or too blunt, regardless of the responder’s intention. Short messages appear on the Facebook thread and may “look” less responsive than longer messages. Future research should examine why the appearance of social media messages is meaningful and how looks matter, even in online communication.

The temporal factor showing increasingly high ratings as the thread of responses went from R1 to R2 to R3 may indicate the message itself begins to feel more meaningful to the discloser as more people respond and more content is posted. Online communication with friends who are planning, or have already experienced, satisfying offline interaction in person allows other who view the Facebook page to see that the discloser has an active social life beyond cyberspace. Thus the Facebook interaction may serve two purposes: to connect with offline friends, and to display friends’ affection for

positive self-presentation to the discloser's social network, enhancing social capital in an acceptable, appropriate manner (Manago et al., 2012; Ledbetter et al., 2011; Ellison et al., 2007). Every picture tells a story, and the "picture" of the text tells the self-discloser a story about the responder while displaying the look/physical appearance of the response to the discloser's social network, contributing to the self-presentation stories of all involved in the interaction.

There is utility in examining message metrics. Because individuals vary in their subjective interpretations of their Facebook response comments, it is helpful to transform the messages into simple, parsimonious metrics examining the number of characters used to determine the length of messages and the use of exclamation points, capital letters and question marks. This method of analysis identifies broad trends of messages rated high in PPR. Based on the current study, digital intimacy for emerging adults may be different from face-to-face intimacy offline. An aspect of messages expressed solely through digital intimacy is the look of the message itself as it appears on the page of the social network site. The broad trend found in the metrics of this study indicated that longer messages in general are more important for PPR, which is associated with increases in intimacy with the responder, thus it follows logically that longer messages are perceived as more intimate.

Gender differences online mirror gender differences found offline. When women post self-disclosure status updates, their friends respond with longer messages, which are rated higher in PPR, than responses to men's self-disclosures. Benefits that accrue to women in their offline relationships extend to their Facebook interactions. Women post longer messages than men, and closer friends, romantic partners, and family members post longer messages than acquaintances.

Gains in intimacy based on self-disclosure status updates and responses occur online, but the intimacy gains seem to be based on plain old-fashioned real life face-to-face prior knowledge of those who are best friends, romantic partners, or family. Before Facebook and other social media existed, considerable effort was needed to maintain connections. Effort to sustain close relationships from afar, in the form of time and expense, to write a letter and to find a friend's address, stuff an envelope and mail the letter. Effort is needed for

friends we see every day, as well: Effort to dress up for each other and display appropriate politeness rituals and norms, and effort to express caring and support using appropriate nonverbal and verbal communication. It is easier to keep up with friends and family through social media, but effort is still important. Friends and family post responses that tend to be longer, indicating that close friends and family take the time to fill their messages with more content and caring. Future studies should examine the textual content of the most impactful responses to self-disclosure status updates. We may still need to be together with our friends and family, in person, to fulfill intimacy needs, but social network sites may sustain us with enough human contact to bridge the time between now when we are apart, and later, when we will enjoy being together again.

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