Does Saying This Make Me Look Good?
How Posters and Outsiders Evaluate Facebook Updates

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ABSTRACT

People often try to impress their friends online, but we don't know how well they do it or what they talk about to try to make themselves look good. In the face of known egocentric biases, which cause communicators to overestimate the extent that audiences will understand the intent of their messages, and self-enhancement biases, that cause people to overvalue their own behavior, it is likely that many self-presentation attempts will often fail. However, we don't know which topics cause such failure. In an empirical study, 1300 Facebook users evaluated their most recent status update in terms of how good it make them look. In addition external judges also evaluated the same update. Posters and outsiders agreed only modestly about how good an update made the poster appear (r=.36, p<.001). Posters generally thought that their posts make them look better than did the outsider judges. They also disagreed on which topics made them look good. Posters were especially likely to overestimate their self-presentation when they wrote about the mundane details of their daily life (e.g., *Clothing*, *Sleep*, or *Religious imagery*), but underestimated it when they wrote about family and relationships (e.g., *Birthday*, *Father's Day*, *Love*).

Author Keywords

Social networking sites; Facebook; self-enhancement; positive self-presentation; impression management; computer-mediated communication; topics; natural language analysis.

ACM Classification Keywords

H.5.3 [Information Interfaces and Presentation]: Group and Organization Interfaces - Web-based interaction.

INTRODUCTION

Goffman says in The Presentation of Self in Everyday Life, "When an individual appears in the presence of others, there will usually be some reason for him to mobilize his activity so that it will convey an impression to others which it is in his interests to convey" [10]. This phenomenon is known as *self-presentation* or *impression management* [10, 20], which refers to the process through which people try to control the beliefs and opinions others form about them. Today, the use of online social networking sites (SNSs) has become a major social practice [e.g., 22, 27]. SNSs are not only a new platform for social interaction, but also present novel arenas for self-presentation. People communicate with others on SNSs to maintain friendships, form new social connections, seek support and entertain themselves. They can construct and manage social identities through these virtual digital places by editing their profiles and posting on their walls. For example, Facebook users manage their profile structure in order to present a certain image to the world--or at least to their Facebook friends [15]. Online social networking services provide researchers a great opportunity to reexamine traditional social theories of self-presentation as well as extend our knowledge of online self-presentation.

In online social spaces, users often make the same social calculations that they do at job interviews or dates on how to present themselves to look good. Even though people may try to look good online, they can often fail because they are not be especially accurate at anticipating what audiences will think of their online performances [6]. People in all cultures seem to share a self-enhancement bias, evaluating themselves more highly than do others [1, 8], although the attributes on which they over-evaluate themselves depend on cultural ideals [21]. For example, most people think they are better than average across many dimensions [2]. Previous research has also documented an egocentric bias in online communication, causing communicators to overestimate their ability to communicate subtle intents, such as when they are being sarcastic, sad or angry [9, 14]. Together these two biases suggest that people posting online will overestimate the positive image of themselves their posts convey to others. This paper tests this assumption explicitly and aims to answer the following research question:

RQ1: How much do posters and outsiders agree when they evaluate self-presentation contained in posts?

Facebook status updates are usually meant for Facebook friends, but since Facebook users have on average over 330 friends [23], many of their posts will go to acquaintances or

even weaker ties who do not know them well. To some degree these interactions with weak ties are similar to interactions with strangers, whose first impressions of a person are based on fleeting, surface-level interaction with little history. These first impressions often determine motives for future interaction, including whether to have follow-up conversation at all [5]. Surprisingly, the first-impressions gleaned from what are termed "*thin slices*" of behavior can be accurate [3]. For instance, students' judgments of teachers based on a 30-second video in the beginning of a semester are strongly correlated with their evaluations of the teachers at the end of the semester [4]. People form similar impressions of another person and similar intentions to be become friends regardless of whether they have viewed a small fragment of that person's Facebook profile or the whole thing [25].

To answer this research question, we collected status updates from a sample of Facebook users and asked the posters and trained judges who did not know them to evaluate the impression the post was intended to produce. Although some researchers have demonstrated that personalities such as narcissism and self-efficacy, are related to individuals' sharing self-enhancing content online [13, 16], we know little about the kind of content that induces a good impression. While most existing research on this topic has asked people to report on their self-presentational tactics [e.g., 19], little has examined how self-presentational behavior and language shape an online self-presentational performance and its effectiveness in influencing an audience. In this paper, we examine how Facebook users use language to present themselves positively in status updates.

RQ2: What topics to people discuss in their status updates that lead themselves and outside judges to evaluate them more highly. Are the same topics associated with positive evaluations for both those who write the updates and those who read them?

In the main part of the study, we use topic models derived in prior research [26] from a large sample of Facebook status updates to discover the topics in status update posts that correlate with a positive self-presentation. Since people generally overestimate their ability to communicate online effectively to others, the research will examine the topics which the posters themselves and outsiders agree improve self-presentation and those on which they disagree. This analysis will help determine the topics posters use to make a positive self-presentation and how strangers evaluate posts on these topics. For example, online content often contains swearing and other "controversial" language. Other Facebook status updates are filled with mundane details from the posters' daily life. Do posters underestimate or overestimate the effects of these topics on their self-presentations?

METHOD

We first describe the way we collected Facebook status updates and operationalized the judgments of positive self-presentation from posters and outsiders.

Facebook Status Updates and Self-Enhancement

In order to construct a dataset of Facebook status updates, we recruited active Facebook participants from Amazon Mechanical Turk and asked them to contribute their most recent Facebook status update. We required that all participants have a United States location and at least a 98% acceptance of their previous submissions. To ensure that the participants were active Facebook users, they answered several questions about their Facebook profile, including "How many days in the past week did you use Facebook?", "How many friends do you have on Facebook?", and "How many photos do you have on Facebook?" Then participants were asked to copy and paste their most recent pure text status update written in English. They then answered five questions about the post to provide their judgments of the degree to which the post was self-enhancing.

Researchers have developed questionnaires to measure self-enhancement, such as the Self-Monitoring scale [24], the Narcissistic Personality Inventory (NPI) [18], and the Balanced Inventory of Desirable Responding (BIDR) [17]. However, these instruments all treat self-enhancement as a stable personality trait and assume that it does not change in the short term. In order to have Turkers assess the degree of positive self-presentation in their posts, we adapted questions from the three self-enhancement scales above, modifying them slightly so that they could be used to measure posters' self-presentational intent in a discrete communication episode.

We followed best practices for constructing scales [e.g., 11] by starting with a large pool of candidate items and then winnowing them based on measures of internal consistency. Our goal was to create a reliable scale with only five items, to reduce respondent burden. Before the final 5 items were chosen, we conducted pilot studies on Mechanical Turk to determine the appropriate set of questions. During each iteration, we started with a larger set of questions drawn from the three self-enhancement questionnaires. Our initial set included only items that could be rewritten to reflect self-presentation in a message rather than as a persistent trait, and through iteration removed items with low agreement and reliability. Our rewriting of trait versions of questions to measure states did not change the wording much, reducing the likelihood of losing the psychometric properties of the original scales. For example, the item "I didn't care what other people would think of me" was modified to the state version, "I didn't care what other people would think of me from this post." After several rounds of testing with larger sets of items, we created a situational self-enhancement scale based on the questions in Table 1. Respondents entered the text of a status update and described their intent when writing it (e.g., "It was

	Think about the time when you [the poster] wrote this post. How much do you agree with the following statements? (1: disagree strongly; 7: agree strongly)
1	It was important for me [the poster] to present myself [himself/herself] positively in this post.
2	I [The poster] was concerned about how I [he/she] would come across in this post.
3	This post reveals more desirable than undesirable things about myself [the poster].
4	I [The poster] didn't care what other people would think of me [him/her] from this post.
5	In this post, I [the poster] worried about making a good impression.

Table 1. Self-enhancement scale for FB status updates

important for me to present myself positively in this post."). These 5 items formed a reliable self-enhancement scale that represents a poster's self-enhancement intent when posting a specific update (Cronbach's alpha=0.74).

After gathering 1,300 updates and posters' self-enhancement assessments, we then collected evaluations of the same posts from outsiders. Four research assistants (1 male and 3 female) with diverse background from a research-oriented university rated each update using the same five items in Table 1, reworded to reflect an audience's point of view. That is, they were asked to imagine the poster's intent when posting. The four RAs firstly coded a common set of 50 posts, and discussed disagreements. They iterated this process twice. The average correlation among their ratings was 0.50 before any discussion, which increased to 0.77 after the first round of discussion and 0.79 after the second. After training, the four RAs annotated the rest of the 1,300 posts. To take into account audience diversity, each status update was evaluated by at least 2 RAs. The outsider's judgment of a post was then computed by averaging the composite scores of the RAs who rated the post. Therefore, each Facebook status update in our dataset had a self-enhancement score from the poster as well as from at least two outsiders. We used student raters for ethical reasons. When we collected status updates from Turkers, the informed consent form promised that only research assistants from our university would see their updates in order to protect their privacy.

Topic Extraction
In order to examine the topics associated with positive self-presentation and to compare topics that posters and outsiders used to judge that a post was self-enhancing, we firstly applied the 25 topic dictionaries constructed by [26] to identify topics in the 1,300 status updates. Using Latent Dirichlet Allocation (LDA) [7], a statistical generative method often used to discover hidden topics in documents and the words associated with each topic, Wang et al. [26] identified 25 common topics from more than half a million Facebook status updates and generated dictionaries to represent each topic comprising the 500 terms most strongly associated with that topic. We cleaned the data using the pre-processing steps described in [26] and represented each update as 25 topic variables, where its

score on a topic was the count of the number of unigrams and bigrams an update contained from each of topic dictionaries. Table 2 shows the 25 topics and sample vocabulary associated with each topic.

ANALYSES AND RESULT DISCUSSION
The analysis was designed to investigate the relationship of topics to both posters' and outsiders' judgments of positive self-presentation. To test whether topics have different influences on posters and outsiders judgments of self-enhancement, we examined interactions between topics and judgers' role (i.e., posters versus outside observers).

We built a linear regression model of self-enhancement, where the status update was the unit of analysis, self-enhancement was the dependent variable, and the type of judge (i.e., poster versus outsider) and the 25 topics were the independent variables. To examine the interactions between role and topics, the model included a binary independent variable to indicate the role of the judge, with zero (0) representing posters and one (1) representing outsiders. Since every status update had two self-enhancing scores (one from the poster and one from RAs) and thus two data points, we built a random-effects linear regression model with role nested within status update to deal with non-independence of observations [12]. For easy interpretation, all the topic variables were standardized, with a mean of zero and standard deviation of one. Table 2 presents the results of the regression analysis. It shows the expected means of the posters' and research assistants' self-enhancement judgments when posts contained a standard deviation more of certain topic and all other topics were at their mean level. The values in the *Difference* column are the interactions between topics and the role. A significant coefficient means that topic influenced self-enhancement judgments differently for the posters and outside observers.

Self-Enhancement Bias
Across the 1,300 messages, posters and outsiders agreed only modest about how self-enhancing an update was intended to be (r=.36, p<.001). While this agreement is reliably greater than chance, it is small in absolute terms, and much smaller than the agreement between any two outside observers (mean r=.63). As expected, on average posters considered their posts to be significantly more self-enhancing (mean=3.48) than did the outside judges (mean=3.32; see *Overall mean* row in Table 2).

Influence of Topics on Insiders' and Outsiders' Judgments
Table 2 shows that *Religious imagery*, *Family fun*, *Anticipation*, and *Thankfulness* were significantly and positively correlated with posters' self-enhancement judgments, suggesting that they believe that talking about these topics improve the impression they make on their audience. On the other hand, *House*, *Swearing*, *Sleep*, *Clothing* were negatively associated with outsiders' judgments of self-enhancement, while *Memorial*, *Birthday*, *Work*, *Politics*, *Family fun*, *Anticipation*, and *Thankfulness*

Topic	Sample Vocabulary [26]	Posters' Judgment	Outsiders' Judgment	Difference
Overall mean		3.476	3.318	-.158 ***
Deep thoughts	idea, success, human, create, sign, goal	3.406	3.258	.011
Love	my heart, gave, strong, love me, fill, joy	3.410	3.390	.138 *
Food	lunch, cook, coffee, beer, chicken, cake	3.425	3.339	.072
Father's Day	happy father, father day, children, my dad	3.429	3.405	.134 *
House	door, my house, cat, street, box, floor	3.437	3.228 *	-.051
Swearing	if u, I wanna, when u, fake, fucking, fuck up, u know, a fuck, dumb, wanna go, dick	3.444	3.241 *	-.045
Sports	beat, fan, ball, la, hello, king, ring, play	3.444	3.326	.040
Medical	drop, doctor, hospital, test, shot, blood	3.448	3.342	.052
Negativity about people	say, people who, judge, waste, piss	3.452	3.355	.061
Weather/travel	road, weather, cold, city, air, town, fly	3.455	3.246	-.051
Memorial	I miss, memory, everyday, peace, grandma	3.463	3.406 *	.101 *
Slang	wen, luv, bt, gud, tht, shock, knw, mi, coz	3.465	3.285	-.022
Sleep	last night, this morning, wake up, sleep	3.470	3.222 *	-.090 *
Birthday	I love, love you, my baby, happy birthday	3.479	3.539 ***	.218 ***
Christianity	the lord, faith, shall, church, christ, god is	3.481	3.219	-.104
Complaining	I hate, I guess, talk to, a lot, tried of	3.492	3.255	-.078
Asking for support/prayers	my friend, worry about, help me, right now, continue, pray for, support	3.501	3.376	.033
Girlfriend/boyfriend	best friend, a girl, boyfriend, my favorite	3.502	3.328	-.016
Clothing	shop, line, wear, store, cloth, dress, bag	3.519	3.207 **	-.154 **
Work	back to, to work, just got, at work	3.537	3.439 **	.060
Politics	country, nation, American, president, vote	3.556	3.476 **	.079
Religious imagery	die, a man, star, death, born, angel, earth	3.582 *	3.270	-.154 **
Family fun	great day, time with, kid, swim, cousin	3.588 **	3.514 ***	.084
Anticipation	wait for, celebrate, can't wait, until, camp	3.623 ***	3.517 ***	.052
Thankfulness	thank you, visit, appreciate, thank god	3.678 ***	3.651 ***	.130 **

Table 2. Linear regression model predicting self-enhancement judgments of Facebook status updates from topics.
(Note: The Posters' and Outsiders' Judgment columns are the predicted self-enhancement means when posts contained a standard deviation more of the topic indicated in the row label and all other features were at their mean levels. Significance levels indicate whether increasing a topic makes messages more or less self-enhancing than average. Values in the Difference column indicate whether a standard deviation increase of the topic indicated in the row label differentially changed Posters and Outside observers self enhancement judgments.)

were positive predictors. Posters' and outsiders' judgments agreed on the effects that some topics had on self-enhancement, including *Family fun*, *Anticipation*, and *Thankfulness*. These topics are widely socially acceptable; people talk about exciting work opportunities, vacationing with their families, and so on. More importantly, most of these topics have a positive tone. For example, an update containing *Anticipation* like "Gonna be in the 60s tomorrow. Spring is finally here!" has wide appeal and makes the poster seem optimistic. Also, a lot of the *Thankfulness* posts featured posters thanking other Facebook users for their birthday wishes, showing the poster adhering to a common social norm on Facebook.

The interactions demonstrate that some topics seemed to influence posters' and outside observers' assessments differently. Specifically, outsiders considered that *Sleep*, *Clothing*, and *Religious imagery* signaled a negative self-presentation, while posters did not. These findings suggest that posters underestimated the negative effects of updates that are about the mundane details of their daily life. On the other hand, posters underestimated the positive effects on making them look good to outsiders of topics like *Love*, *Father's Day*, *Memorial*, *Birthday*, and *Thankfulness*. These findings suggest that sharing things about family and relationships is good for impression management.

CONCLUSION AND LIMITATIONS
This paper studied how posters and outsiders judged Facebook status updates in terms of positive self-presentation by examining their topics. Posters generally thought that their posts make them look better than the outsider judges did. Posters optimistically overestimated the self-enhancing nature of their posts when they wrote about the details of their daily life, but underestimated it when they wrote about family and relationships. This study contributes to the understanding of how self-presentational language translates into self-presentational performance and its effectiveness in influencing an audience. It demonstrates the circumstances under which one's self-presentation attempt would fail or succeed in computer-mediated communication. The findings imply the possibility of providing assistance to users on social networking sites for impression management during content generation.

One limitation of this study is that the outsider judges were strangers to the posters, so they may not be appropriate judges for the task. Future work could use other approaches to include posters' friends to examine whether background knowledge and tie strength influence the success of their self-presentational attempts for different audiences.

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