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# GRATITUDE IN THE 21<sup>ST</sup> CENTURY

An Experimental Examination of  
Gratitude Expressions on  
Facebook and Resultant Subjective  
Well-Being

Ericka Goerling, PhD  
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## Purpose of This Study

The purpose of this study was to empirically investigate the effects of online gratitude expressions, in three different virtual environments, as it relates to subsequent subjective well-being.



## Counting Blessings Versus Burdens

- ✓ Empirical gratitude studies was launched by the research of Robert Emmons and Michael McCullough (2003).
- ✓ Grateful people showed 25% higher subjective well-being (SWB) that endured 6-months post-study.
- ✓ Their design became a commonly used gratitude intervention.



## Physical & Mental Health

- ⌚ **Exercised more regularly**
- ⊕ **Reported fewer physical ailments**
- 🌙 **Slept better**
- 🥂 **Increased optimism**  
Emmons & McCullough, 2003
- ↩ **Lowered body dissatisfaction**  
Wood, Froh & Geraghty, 2010
- ☁ **Better coping with stress**  
McCullough, Tsang, & Emmons, 2004
- 🤝 **Social Exchanges, including enhanced empathy, generosity and altruism.**  
McCullough, Emmons, & Tsang, 2002; Bartlett & DeSteno, 2006




# FACEBOOK

A few quick facts.




## STATISTICS

Facebook reports an average of 1.18 billion daily active users and 1.79 billion monthly active users.




## MOBILE DEVICES

Mobile device users comprise an average of 1.09 billion daily active users with 1.66 billion mobile monthly active users.



## Facebook, 2016




## USERS

Approximately 84.9% of their daily active users are outside of the US and Canada.


# Facebook, Social Exchanges & SWB

Since its' advent, social science research about and via Facebook has continued to grow.




## Kim & Lee, 2011

The number of FB friends and self-presentation had positive associations with SWB.




## Sas, Dix, Hart & Su, 2009

Qualitative results suggested that the most prevalent memorable experiences were those that elicited feelings of connectedness.




## Qui, Lin, Leung & Tov, 2012

Users were more likely to present positive emotions online (possibly reducing the negative effects of upward comparison).



## Kramer, Guillory & Hancock, 2014

Users' moods were affected by what they viewed in their newsfeed (both positive and negatively). Emotional contagion.

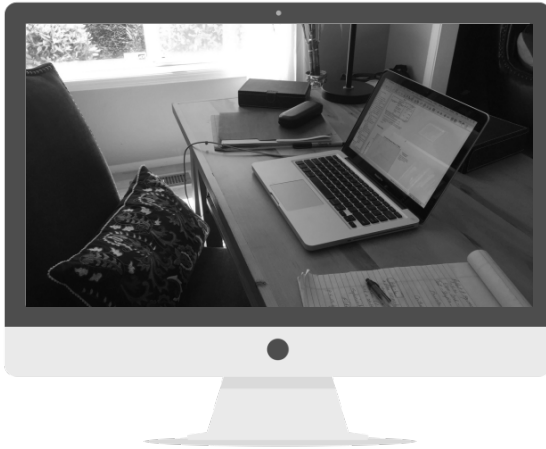


## IN THEIR WORDS

"I have continued to post every day since the end of the challenge. There are 4-5 other people on my feed who now post gratitude related posts on a regular basis."

# Gratitude & Social Media

Research is limited and still emerging



## Parks, et al., 2012

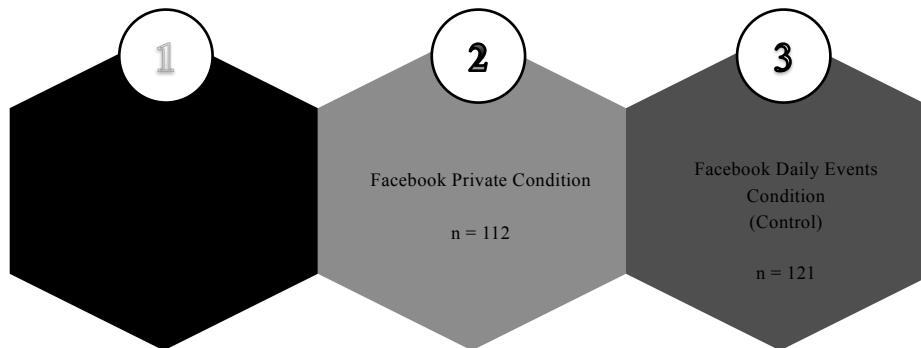
Researchers set out to understand online happiness seekers. Expressing gratitude was 3<sup>rd</sup> highest activity practiced. Nurturing social relationships was close to that, as well.



## Sosik & Cosley, 2014

One-week intervention in which users were randomly assigned a daily, positive activity. The “Gratitude Journal” had the highest engagement.

## 3-Group Experimental Design (N = 352)



PARTICIPANT  
IN THEIR  
WORDS

“I didn’t do the challenge that included posting to friends, just the one with private messages, and it did make me more conscious of the things that I am thankful for (at this time).”



# Recruitment

Potential participants were recruited in a variety of ways. All participants were required to be 18 years of age or older, as well as a Facebook user.



## Facebook Study Page

I designed a unique study page on Facebook for inquiries, messaging and links to the study start page.



## Facebook Boosts

I used the Facebook feature of "boosting posts" to reach additional audiences.



## College Students ( $n = 113$ )

Psychology faculty at Portland Community College and Portland State University distributed information and offered extra credit for participation.



## Word of Mouth

A number of colleagues, as well as participants, shared the link to the study.



## Measurements

### (Three Assessment Points via SurveyMonkey)



#### Gratitude Questionnaire-6 (GQ-6; McCullough, Tseng & Emmons, 2002)

A self-report measure on individual differences in gratitude (7-point Likert scale). In this study, Cronbach's alpha ranged from .75 to .84 across the three time periods.



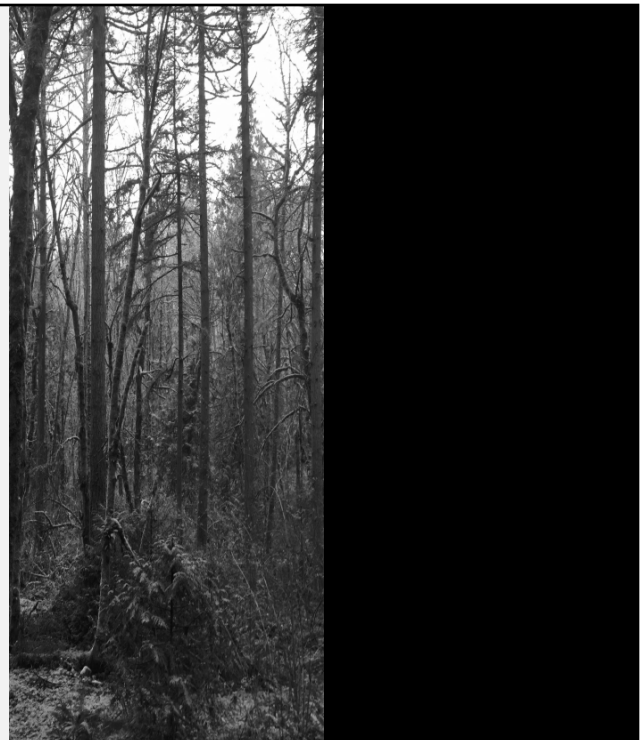
#### Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985).

This is a 5-item Likert-type, self-report scale that is designed to measure one's overall judgments of their life satisfaction versus measuring affect. In this study, Cronbach's alpha ranged from .87 to .89 across the three time periods.



#### Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988).

The PANAS contains 10-items measuring positive affect (PA) and 10 items measuring negative affect (NA) on 5-point Likert-type scale. In this study, Cronbach's alpha ranged from .85 to .90 for Positive Affect and .88 to .89 for Negative Affect across the three time periods.



## Critical Findings

- ☆ There was a positive association for individuals who received strong, encouraging responses from their Facebook friends and their subsequent positive affect (regardless of condition).
- ☆ The level of user's self-disclosure on Facebook is positively associated with the user's reported level of personal meaning (this occurred in both the public gratitude condition and the control condition).
- ☆ The participants in the gratitude condition showed a significant, positive correlation between their friends' responses to their posts and ALL their measures of SWB.
- ☆ The presence of this positive correlation **increased** with time – all of the correlations between friend's responses and the positive measures of SWB were higher at Day 37.
- ☆ Active FB engagement appears to increase the feeling of closeness and positive emotions.



## Gratitude Outcomes

The gratitude conditions did not actually have the intended effect of raising levels of gratitude in this study. Possible explanations include:

### One

Participants self-selected for this study and had a high baseline mean score in gratitude: ( $M = 6.06$ ,  $SD = .850$ ).

### Two

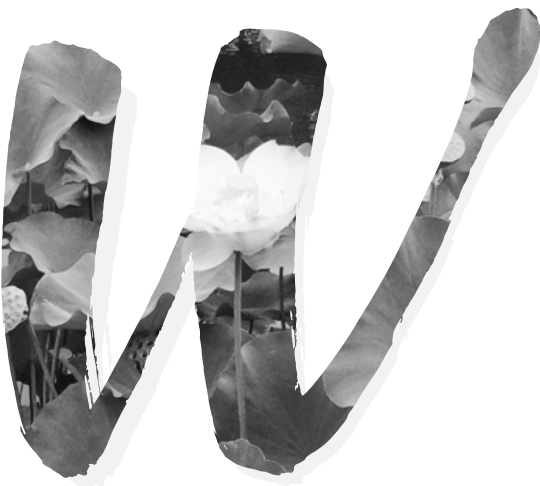
Davis, et al (2016) meta-analysis indicated weak evidence for the efficacy of gratitude interventions. The authors recommended more comparative studies with participants experiencing distressing emotions.\*

\*Participating with gratitude activities, in the face of some distressing emotions, may be counterproductive for some.



## Study Strengths

- ✓ **WEB-BASED, EXPERIMENTAL DESIGN**  
Adds to fields of positive and media psychology.  
Adds to current literature specific to social media and gratitude.
- ✓ **SELF-SELECTING PARTICIPANTS**  
More diverse age range/demographic (74% reported that they are 25 years of age or older).  
Increased diversity in education level, income, geographical area and race/ethnicity.
- ✓ **SOCIAL MEDIA AND WORD-OF-MOUTH RECRUITMENT**  
In addition to being free, social media recruitment allows researchers to expand web-based interventions to a much broader audience (enhancing more generalizable results, potentially).



## Study Weaknesses

- ✓ **ATTRITION**  
Initial attrition among the student cadre ( $n = 113$ ) was quite low. For the general public, attrition rates were higher, initially, but endured past the 7-day mark.
- ✓ **DOSAGE**  
This study was one-week in duration. Ideally, at least two weeks (or more) would likely yield more rigorous results.
- ✓ **SWB MEASURES LIMITATIONS**  
Measures of SWB were limited to three tools. This may have resulted in some habituation in taking the assessments. Certainly, there may be limitations in the forced response model of self-report.



## Opportunities



### ENHANCING SOCIALITY

Expand research in positive emotions (gratitude, authenticity, altruism) and connectedness, as it relates to social media.



### POSITIVE EMOTIONS

Many opportunities exist to further investigate the role of gratitude in light of distressing emotions (PhD students are a great sample!).



### RELATIONSHIP BOOSTS IN ONLINE COMMUNITIES

Inquiries in how expressing gratitude via social media can possibly *boost* existing relationship satisfaction among friends and partners.



### QUALITATIVE INQUIRIES

There is still a great deal to be learned via qualitative inquiries in the experience of expressing gratitude (and social media is a great platform to conduct that research).

## Sociality Broadens & Builds

When we experience the vested interest of others, positive emotions may result, which enhances the way we relate to others and increases interconnectedness.





# GRATITUDE

Thank you for attending today!  
Email: [ericka.goerling@pcc.edu](mailto:ericka.goerling@pcc.edu)  
503-502-1651

Questions/Comments?