Health Slacktivism on Social Media: Predictors and Effects

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Abstract. The present study examined predictors, moderators, and effects of health slacktivism, which is characterized as individuals' effortless acts in supporting health causes primarily through Internet and social media. Findings revealed that issue-involvement and self-presentation were two underlying predictors of slacktivism. Specifically, ingratiation self-presentation was found to be a significant predictor of slacktivism among slacktivists, while enhancement self-presentation predicted slacktivism among activists. Results imply that strategic impression-management types were associated with health slacktivism among particular sub-groups. It is also found that health slacktivists and activists differed by relational connection. Slacktivists tended to be people who were remotely related to the health issue advocated, while activists were people who had closer relational connection to the health issue. Health consciousness, however, was not a significant predictor of slacktivism nor a differentiating factor between slacktivists and activists. Consistent with the Transtheoretical Model, slacktivism was found to have positive effects among participants in terms of awareness, psychological wellbeing, behavioral intention and behavior adoption. Individuals' low-threshold engagement as slacktivism also predicted their high-threshold engagement (activism), implying that getting involved in slacktivism does not substitute for offline forms of participation but may increase the possibility of offline engagement instead.

Keywords: slacktivism, activism, social media, health campaign, health consciousness, issue-involvement, self-presentation.

1 Introduction

Web 2.0 has changed the way people engage in social activism in that the Internet have opened up a new world for quick access and connection to online campaigns of various social causes [1-2]. Social media allows people to "collaborate, coordinate, and give voice to their concerns" in a convenient and effortless way [3, p.2]. Nonetheless, "slacktivism" emerges as online activism increases through social media [4-7]. The term, slacktivism, combining slacker and activism, refers to acts of participating in effortless activities as an expedient alternative to expending effort to support a social cause [4-5]. In other words, social media allows people to take a stance and participate in social issues with minimum effort. For example, people

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cartooned their Facebook profile picture to support the anti-child abuse campaign [8] or greened their Twitter profile to support democratic elections in Iran [1]. Slacktivists are thus characterized as individuals who are generally "happy to click a 'like' button about a cause" but "hardly inspired with the kind of emotional fire that forces a shift in public perception" [9, p.18]. The term implies that this kind of supporters is lazy and their actions are not very helpful [10]. Criticism about slacktivists is thus that they do not really advance activism to make any real change, which is considered as the most critical goal of any activism [9]. Nonetheless, proponents of slacktivism regard slacktivist activities as indicators of growing support, such as website traffic numbers generated, e-petition signatures delivered, "like" counts, etc. [9].

Despite it's a growing trend, slacktivism has received little research, particularly in the health domain. There is a lack of knowledge about the potential benefits and factors associated with slacktivism [1]. The present study attempts to fill in the gap by exploring predictors of individuals' participation in health slacktivism and potential effects.

2 Literature Review

2.1 Issue-Involvement and Relational Connection

Research [3] suggests that activism taking place on social media is primarily built around weak ties, while conventional activism usually entails greater bonding/ face-to-face connections to make a spark to a real change, and thus is mostly built around strong ties. In a similar vein, McCofferty [9] argues that conventional activism requires "strong, robust or organizational structure," and is usually "built upon strong tie personal connections," but activism on social media is deemed to be "relying on individuals' weak ties which are less related and loosely connected" (p.18). In other words, social media, which connects people with weak ties, is suitable for finding people sharing the same concerns and spreading the ideas, but may not necessarily for "high-risk activism"[3, p.5]. Connection is a way to understand supportive activities to health causes [11]. It is thus hypothesized that issue-involvement will be a predictor of activism/slacktivism, and relational connection to the addressed cause can differentiate how much effort a person will put in to a health cause:

H_1: Issue-involvement positively predicts low-threshold engagement (H_{1a}) and high threshold engagement (H_{1b}) in health causes.

H_2: Slacktivists exhibit lower issue-involvement (H_{2a}) and have less close relational connection (H_{2b}) with the health issue advocated than their activist counterparts.

H_3: Participants who have close relational connection to the health issue advocated have higher issue-involvement (H_{3a}), low-threshold engagement (H_{3b}), and high-threshold engagement (H_{3c}) than those who have remote relational connection.

2.2 Self-presentation and Slacktivism

Studies have shown that individuals are aware of their presentation online for a pleasing impression [12,19]. People try to influence the perception of their image and create a good impression by regulating and controlling the information on social media [13]. Self-presentation, which is defined as the types of behavior by which people communicate what they want to deliver and to control how others see them, is associated with self-esteem maintenance and goal-relevance of impressions [14-15]. Lee at al. [16] extended the concepts into ten strategies and developed a Self-presentation Tactics Scale (SPT). Among the ten tactics, four types of self-presentation were selected and examined by the researcher, including ingratiation, supplication, enhancement, and exemplification self-presentation.

Ingratiation self-presentation refers to the strategy to increase one's likability by intentionally doing positive things to make others feel good (e.g., saying positive things about others, doing favors for others, etc.). It could be associated with slacktivism in that people want to increase their likability by "appearing" to be supportive and attentive to health causes, but they may not be actually concerned enough to sacrifice more. Supplication self-representation refers to the strategy of presenting oneself as weak and dependent on others in order to "get others' care, protection, help and support" [17]. Supplication could be associated with slacktivism in that individuals may want to get help from others by associating themselves with a health cause and engaging in activities (e.g., sharing sympathetic photos or messages related to the health causes) to highlight their needs, draw attention, or gain support. Enhancement refers to the strategy to increase others' perception of one's knowledge, status, or success by presenting oneself as knowledgeable, competent or resourceful in front of others. It could be associated with slacktivism in that individuals may want to participate in health campaigns through social media in order to show their capacity to access, manage, and refer resources to those who are in need of them. As Hansen, Shneiderman, and Smith[18] mentioned, some functions afforded on social media (e.g., a "retweet" or a "share" from someone else) allow people to "show off the cool people they know." Lastly, exemplification self-presentation refers to the strategy to increase positive impressions by presenting one's behavior as "morally worthy and as having integrity" [19]. It is associated with slacktivism in that slacktivists may engage in supportive acts of health campaigns in order to be seen as role models by others. Taken together, the following research question was brought up with respect to self-presentation:

RQ_1: How is self-presentation associated with slacktivism? Do slacktivists exhibit certain type of self-presentation compared to their activist counterparts?

2.3 Health Consciousness and Slacktivism

Researchers have defined health consciousness as "a tendency to focus attention on one's health" [20, p.603]. It generally refers to an individuals' orientation toward preventing possible illness and improving wellness. The orientation is believed to be important to initiate health-promoting behaviors and activate health information

seeking. Kraft and Goodell [21] suggested that health consciousness comprises sensitivity to health hazards, physical fitness, stress, and nutrition, and it also signals individuals' "readiness to undertake health actions" [22-23, p.4]. Health conscious individuals were believed to be more concerned about their health, more knowledgeable about health issues, more likely to take actions to improve their health quality of life, and were shown to have better wellness [24]. Given so, it is thus hypothesized that health slacktivists, compared with their activist counterpart, may possess lower health consciousness. The following hypothesis was proposed:

H_4: Health consciousness positively predicts the level of engagement in online health activism (H_{4a}). Plus, slacktivists will have lower level of health consciousness than activists (H_{4b}).

2.4 Slacktivism and the Stages of Change

Based on the Transtheoretical Model [25-29], health behavior change unfolds over time through a temporal sequence of stages, including precontemplation, contemplation, preparation, action, maintenance, and termination. In this model, "processes of changes" are believed to be associated with progress people make through stages, including consciousness-raising, dramatic relief, self-reevaluation, and environmental reevaluation [28]. The stages of change are associated with slacktivism in that, compared with their activists counterpart, slacktivists could be people who are not concerned enough about a health cause due to a lack of consciousness, a lack of emotional arousal, or a lack of information to commit actions beyond a certain level. As a result, they are not motivated enough or not become concerned enough about a health issue to consider a new behavior [27]. Given so, the last research question concerning the effects of slacktivism was proposed in terms of awareness, psychological wellbeing, behavioral intention, and behavior adoption. Uncovering these subsequent effects caused by engaging in slacktivist activities would help understand potential benefits/costs of the phenomenon and explain it through a theoretical lens.

RQ_2: What are the effects of slacktivism in terms of awareness, psychological wellbeing, behavioral intention, and behavior adoption?

3 Methods

3.1 Recruitment

This study was developed using Qualtrics online survey software. Participants were recruited on Amazon Mechanical Turk at time 1 (April 2013) and time 2 (July 2013). Participants who were over 18 years old and currently resided in the United States were eligible to participate in the survey. Incomplete surveys and cases with incorrect answers for validation questions were excluded (n_1=6, n_2= 10), and this resulted in a total of 156 (n_1=63, n_2= 93) respondents retained for subsequent analyses. Responses in the study were examined for normal distribution, skewness, and outliers. All

variables in this study met the assumption of parametric tests. They were normally distributed and outlier-free. Case-wise method was used to deal with missing values in subsequent analyses.

3.2 Measures

Health slacktivism was measured by a set of items assessing participants' *types of engagement* in health campaigns (i.e., slacktivists or activists) and their *amount of engagement* in each level of engagement (i.e., low- and high-threshold engagement). The first variable, *types of participation* (slacktivists vs. activists), was measured by a nominal question asking participants in what way they usually involved in health campaigns. The question presents three levels of engagement using the concepts from Neiger et al. [30]. A sample option is "I usually engage in online health campaigns/advocacy by acknowledging agreement or showing preference for the content shared using the 'Like' function, the 'Favorite' function, or the rating system on the social media." Participants were further asked with three sets of items about the *amount* of their participation in health causes on a 5-point scale from "never" to "almost always". The first two levels were further designated as "low-threshold engagement" (slacktivism), and the third level was labeled "high-threshold engagement" (activism). The 9 items measuring low-threshold engagement had a Cronbach's alpha of 0.895, and the 6 items measuring high-threshold engagement had a Cronbach's alpha of 0.834.

The second variable, *relational connection*, was measured by asking about participants' relationship with the health cause with nominal options. A sample question is "I identify myself as the patient of the health causes/problem."

The third variable, *issue-involvement*, was measured by four items representing different reasons for showing support to the health cause on a 5-point scale from "not at all true of myself" to "true of myself". A sample item was "I am motivated to learn more about the health issue advocated". The scale had a Cronbach's alpha of 0.885.

Self-presentation was measured by the adapted version of the Self-presentation Scale[16]. Ingratiation was measured by five items (Cronbach's α= .819), such as "I use flattery to win the favor of others." Supplication was measured by three items (Cronbach's α= .846), such as "I tell others they are stronger or more competent than me in order to get others to do things for me." Enhancement was measured by three items (Cronbach's α= .839) such as "When I succeed at a task, I emphasize to others how important the task was." Examplification was measured by three items (Cronbach's α= .831) such as "I try to set an example for others to follow." All 13 items were rated by participants on a 5-point scale from "never" to "always". The Cronbach's alpha for the overall 13-item scale is 0.869.

Health consciousness was measured by 6 items adapted from previous health consciousness scales [21, 24, 31]. A sample items was "I am aware of the state of my health as I go through the day." Response options ranged from "strongly disagree" to "strongly agree". The scale had a Cronbach's alpha of 0.799.

Effects. Awareness items (Cronbach's α= .776) asked participants whether they perceived themselves as becoming aware of the health issue advocated after their

participation in to online health campaign/advocacy, such as "I became aware of the health issue after my responding to the online health campaign." Psychological wellbeing was measured by five items (Cronbach's α= .871) such as "I feel more empowered after my online participation in the health campaign." Behavioral intention was measured by one item "I intended to adopt behavior advocated in the online health campaign/advocacy." Behavior adoption was measured by three items (Cronbach's α= .721) asked participants' behavioral change related to the health issue advocated, such as "I made changes of my lifestyle/habits as what is advocated in the health campaign." All items were rated on a 6-point scale from "strongly disagree" to "strongly agree."

4 Results

4.1 Participants Demographics

Participants were 156 adults recruited from Mechanical Turk. There were 39.2% males (n=62), and 60.3 % were females (n=94). The mean age was 35.5 (SD=13.99), ranging from 19 to 85 years old. Approximately 69.9% (n=109) of participants were White/Caucasian, 12.2% were Asian (n=19), 7.1% were Black/African American (n=11), 6.4% were Hispanic/Latino (n=10), and 3.8% marked "other" (n=6). As for marital status, 43.6% of participants were single (n=68), 34.6% were married (n=54), 2.6% were widowed (n=4), 6.4% were divorced or separated (n=10), and 12.8% were living with a partner (n=20). Thirty-three percent of respondents had children (n=52), and 66.7% of respondents did not have children (n=104). About 82% (n=128) indicated that they primarily had low-threshold engagement in health campaigns/advocacy, who were characterized as "slacktivists" in the study, and 16% (n=25) had high-threshold engagement, who were labeled as "activists" in the present study.

4.2 Main Results

A series of chi-square analyses on demographics were firstly conducted to examine differences between slacktivists and activists. No significant differences were found for gender (p=0.12), marital status (p=0.57), ethnicity (p=0.97), schooling (p=0.99) and income (p=0.63).

In order to test H_1 which proposed that issue-involvement positively predicts individuals' low- and high- threshold engagement, simple regression analyses were conducted. Results showed that issue-involvement was positively associated with low-threshold engagement and also a significant predictor of both low-threshold engagement (β=0.43, p=0.000) and high-threshold engagement (β=0.33, p=0.000). H_{1a} and H_{1b} were supported. In addition, it was found that there was a strong, positive link between low- and high-threshold engagement. Low-threshold engagement (i.e., slacktivism) was a strong predictor of high-threshold engagement (i.e., activism) (F(1,147)=94.32, β= 0.63, p=0.000, R^2= 0.39), indicating that the more

an individual participate in slacktivist activities, the more likely the person will be involve in offline support which entails greater costs.

In addition, results of t-tests confirmed that slacktivists had significantly greater participation in low-threshold health activism (M=2.44, SD= 0.77) than activists (M=2.07, SD= 0.83) (t(146)= 2.102, p=0.04); and activists had significantly greater participation in high threshold health activism (M=2.27, SD= 0.68) than slacktivists (M=1.89, SD= 0.72) (t(148)= -2.339, p=0.02). Results indicated that there was no significant difference in issue-involvement between slacktivists and activists (t(151)= 0.484, p=0.629). H_{2a} was rejected. Nonetheless, there were significant differences in relational connection existed between slacktivists and activists (χ^2= 14.17, p=0.015). Significantly higher proportion of slacktivists indicated that "none of people around me is related to health issue advocated" (14.1%, compared to 0% of activists). H_{2b} was accepted.

To examine H_3 which proposed that issue-involvement is influenced by individuals' relational connection to the health issue advocated, a t-test indicated a significant differences in issue-involvement between close and remote relational connection groups (p= 0.000; t(154)= 3.96. Participants who identified themselves as patients/ friends or family members/caregivers with respect to the health issue advocated had significantly higher scores on issue-involvement (M=3.80, SD= 0.87) than those who were remotely related to the health issue (e.g., "None of people around me are related to the health issue advocated" (M=3.18, SD=1.00). H_{3a} was supported. The close relational connection group also had significant (t(151)=2.127; p=0.035) higher high-threshold engagement (M=2.02, SD=.76) and low-threshold engagement (M=2.45, SD=.77) than the remote relational group (M=1.76, SD=.63 and M=2.17, SD=.82 respectively). H_{3b} and H_{3c} were supported.

Furthermore, the first research question concerned the association between self-presentation and slacktivism. No significant differences in any of the four types of self-presentation between slacktivists and activists (ingratiation: t(150)=-0.96, p= 0.34; supplication: t(149)=0.28, p= 0.78; enhancement: t(151)= 0.13, p=0.90; exemplification: t(150)= -0.69, p=0.50). Nonetheless, results of a multiple regression analysis with stepwise method indicated that, among slacktivists, ingratiation self-presentation was found to be a significant predictor of low-threshold engagement (F(1,120)=14.53, p=0.000, β= 0.33). For activists, enhancement self-presentation was found to be a significant predictor of their low-threshold engagement with a very high coefficient (F(1,20)=5.04, p=0.036, β= 0.449). Interestingly, relational connection was found to moderate the relationship between self-presentation and slacktivism. Among those who were remotely related to the health issue advocated, ingratiation self-presentation significantly predicted low-threshold engagement (F(1,48)=21.80; β=0.56, p=0.000). On the contrary, among those who were personally related to the health issue advocated, enhancement self-presentation significantly predicted their low-threshold engagement (F(1,95)=7.71; β=0.27, p=0.007).

H_4 concerned health consciousness as a predictor of level of engagement in health campaigns/advocacy (H_{4a}), and it proposed that slacktivists would have a lower level of health consciousness than activists (H_{4b}). Regressional analyses indicated that health consciousness was significantly associated with and was a predictor of both

low-threshold engagement ($F(1,148)=8.88$, $p= 0.003$, $\beta=0.24$) and high-threshold engagement $F(1,151)=8.04$, $p= 0.005$, $\beta=0.23$). While there was no significant difference in health consciousness between slacktivists and activists ($t(150)= -0.89$, $p=0.37$), the scores were in the right direction (activists: $M=4.43$, $SD= 0.78$; slacktivists: $M=4.28$, $SD= 0.74$). A multiple regression analysis with stepwise method was conducted to examine the model fit with the inclusion of the three predictors and low-threshold engagement as the dependent variable. Results were shown in Figure 1:

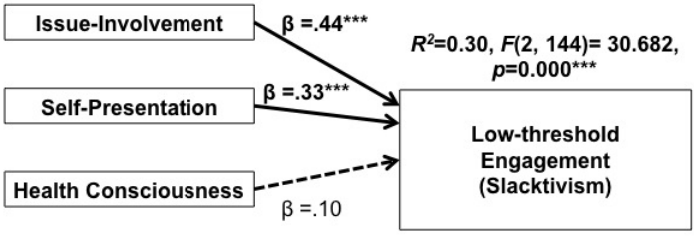

Fig. 1. Predictors of low-threshold engagement using multiple regression (stepwise method)

The last research question concerned the effects of slacktivism in terms of awareness, psychological wellbeing, behavioral intention, and behavior adoption. A series of regression analyses revealed that low-threshold engagement was a significant predictor of awareness ($F(1,149)=63.19$, $\beta= 0.55$, $p=0.000$), psychological wellbeing ($F(1,149)=54.63$, $\beta= 0.52$, $p=0.000$), behavioral intention ($F(1,149)=23.55$, $\beta= 0.37$, $p=0.000$), and behavioral adoption ($F(1,149)=65.22$, $\beta= 0.55$, $p=0.000$). Our findings revealed that participants gained awareness, psychological and behavioral benefits by engaging in slacktivist activities, which may disprove negative claims about slacktivism.

5 Discussion

To sum up, issue-involvement and self-presentation were found to be the best underlying predictors of slacktivism in the study. Relational connection and income level were found to be important moderators between issue-involvement and slacktivism. The findings reaffirm the assumption that stronger ties (i.e., close relationships) serve as a mechanism to increase individuals' issue-involvement in a health cause, which in turn is transformed into both online and offline support to health campaigns. Also, income was found to be a moderator between issue-involvement and slacktivsm, revealing the importance of financial factor in determining one's participation in health campaigns.

Noticeably, self-presentation was found to be associated with slacktivism and activism in particular ways. Ingratiation self-presentation was found to be a significant predictor of slacktivism among slacktivists, implying that slacktivists who had greater desire to gain liking from others engaged more in health campaign online

even it's remotely related to them. Among activists, on the other hand, enhancement self-presentation was found to be a strong predictor of slacktivism, indicating health activists engaged in online activities with the hope of enhancing their self-image (e.g., perceived as credible, influential). The results address the importance of social media as a recognized public sphere where individuals can build positive self-images by performing "seemingly" altruistic behaviors, which particularly manifests among those who have little to do with the health cause advocated. In other words, slacktivism, which relies on less related ties [9], is a function of strategic self-presentation.

Contrary to our expectation, health consciousness was not a significant predictor of slacktivism when taking into account other predictors in the model. This may be explained by previous findings in the study that slacktivist activities are more strategic actions than behaviors reflecting one's own health orientation. A possible explanation based on the feedback of participants is that some people who considered themselves health conscious did not avail themselves to social media very often and thus do not expose to any health campaigns online.

Lastly, it was found that slacktivism leads to positive effects in terms of awareness, psychological wellbeing, behavioral intention, and behavioral adoption. It was also found that slacktivism was a strong predictor of activism, implying that getting involved in health slacktivism online did not replace traditional forms of participation, but can actually reinforces one's offline engagement. To conclude, it may not be necessary to hold a skeptical view about slacktivism [9]. As proponents suggest, slacktivism may be just a reflection of human nature to utilize handy, available resources and tools [10]. Slacktivism could be seen as "approaches to exploit technology in ways previously not conceived to advance a cause" [9, p.19]. At best, it helps promote health behavioral change as revealed by current study; at worst, it may not achieve what it claims but it is harmless [10, 33].

6 Limitations

There are several limitations in this study. Firstly, the sample was a convenience sample recruited from Mechanical Turk. A random sampling is desired in the future work in order to have better generalizability. In addition, as a preliminary study, this paper is meant to explore underlying factors that were assumed to bear an influence on slacktivsm, whereas there would be more potential factors differentiating slacktivists from activists. There is also a need to explore the mechanisms turn slacktivists into activists. Adding these elements to the study would yield more abundant findings that help theorize on health slacktivism/activism. Future studies could consider using an experimental design which incorporates pre- and post-measurement to compare the effects of slacktivism and activism. However, measuring efficaciousness of health slacktivism versus activism is not easy and may require long-term observation and repeated measures. There is much research that needs to be done to assess the impact of slacktivism.

References

1. Rotman, et al.: From slacktivism to activism. Participatory culture in the age of social media. In: Proceedings from CHI EA 2011: The 2011 Annual Conference Extended Abstracts on Human Factors in Computing Systems, Canada, Vancouver (2011)
2. Middaugh, E.: Service & Activism in the Digital Age: Supporting Youth Engagement in Public Life. DML Central Working Papers (2012)
3. Gladwell, M.: Small change: Why the revolution will not be tweeted, New Yorker (October 4, 2010), http://www.newyorker.com/reporting/2010/10/04/101004fa_fact_gladwell (retrieved April 3, 2013)
4. Davis, J.: Cause marketing: Moving beyond corporate slacktivism (November 22, 2011), http://evidencebasedmarketing.net/cause-marketing-moving-beyond-corporate-slacktivism (retrieved April 2, 2013)
5. Whipple, T.: The rise of slacktivism. The Times (February 9, 2011), http://search.proquest.com.ezp01.library.qut.edu.au/docview/850108467 (retrieved April 3, 2013)
6. Shirky, C.: The Political Power of Social Media. Foreign Affairs 90(1), 28–41 (2011)
7. Kain, E.: Time 'Person' of the year prediction: The slacktivist. Forbes (April 3, 2012), http://www.forbes.com/sites/erikkain/2012/04/03/2012-time-person-of-the-year-prediction-the-slacktivist/ (retrieved April 15, 2013)
8. Slacktivism: Know Your Meme (n.d.), http://knowyourmeme.com/memes/slacktivism (retrieved April 16, 2012)
9. McCofferty, D.: Activism vs. Slacktivism. Communications of the ACM 54(12), 17–19 (2011)
10. Bailyn, E.: The Difference between slacktivism and activism: How 'Kony 2012' is narrowing the gap. Huffington Post (March 29, 2012), http://www.huffingtonpost.com/evan-bailyn/kony-2012-activism_b_1361791.html (retrieved April 20, 2013)
11. Saxton, G.D., Wang, L.: The social network effect: The determinants of giving through social media. Nonprofit and Voluntary Sector Quarterly, 1–35 (2013)
12. Ellison, N., Heino, R., Gibbs, J.: Managing impressions online: Self-presentation processes in the online dating environment. Journal of Computer-Mediated Communication 11(2), article 2 (2006), http://jcmc.indiana.edu/vol11/issue2/ellison.html (retrieved April 2, 2013)
13. Birnbaum, M.G.: Taking Goffman on a Tour of Facebook: College students and the presentation of self in a mediated digital environment. Dissertation Abstracts International Section A 69 (2008)
14. Goffman, E.: The presentation of self in everyday life. Doubleday, New York (1959)
15. Leary, M.R., Kowalski, R.M.: Impression Management: A literature Review and Two-factor Model. Psychological Bulletin 107, 34–47 (1990)
16. Lee, S.J., et al.: Development of a Self-presentation Tactics Scale. Personality and Individual Differences 26(4), 701–722 (1999)
17. Wang, K.W.: Faces on Facebook: A study of self-presentation and social support on Facebook. SS Student E-Journal 1, 184–214 (2012)
18. Hansen, D., Schneiderman, B., Smith, M.A.: Analyzing social media networks with NodeXL: Insights from a connected world. Morgan Kaufmann (2011)
19. Jones, E.E., Pittman, T.S.: Toward a general theory of strategic self-presentation. In: Suls, J. (ed.) Psychological Perspectives on the Self. Erlbaum, Hillsdale (1982)

20. Iversen, A.C., Kraft, P.: Does socio-economic status and health consciousness influence how women respond to health related messages in media? Health Education Research 21(5), 601–610 (2006)
21. Kraft, F.B., Goodell, P.W.: Identifying the health conscious consumer. Journal of Health Care Marketing 13(3), 18–25 (1993)
22. Becker, M.H., Maiman, L.A., Kirscht, J.P., Haefner, D.P., Drachman, R.H.: The health belief model and prediction of dietary compliance: a field experiment. Journal of Health and Social Behaviour 18, 348–366 (1977)
23. Michaelidou, N., Hassan, L.M.: The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food. International Journal of Consumer Studies 32(1), 163–170 (2008)
24. Hu, C.W.: A New Measure for Health Consciousness: Development of A Health Consciousness Conceptual Model. Unpublished paper presented at National Communication Association 99th Annual Convention, Washington, D.C. (November 2013)
25. DiClemente, C.C., Prochaska, J.O.: Self-change and therapy change of smoking behavior: A comparison of processes of change in cessation and maintenance. Addictive Behaviors 7, 133–142 (1982)
26. Prochaska, J.O., DiClemente, C.C.: Stages and processes of self-change of smoking: Toward an integrative model of change. Journal of Consulting and Clinical Psychology 51(3), 390–395 (1983)
27. DiClemente, C.C.: The Transtheoretical Model of intentional behaviour change. Drugs and Alcohol Today 7(1), 29–33 (2007)
28. Prochaska, J.O., Redding, C.A., Evers, K.E.: The transtheoretical model and stages of change. In: Glanz, K., Rimer, B.K., Viswanath, K. (eds.) Health Behavior and Health Education: Theory, Research, and Practice, pp. 97–102. Jossey-Bass, San Francisco (2008)
29. Prochaska, J.O.: Decision making in the Transtheoretical Model of behavioral change. Medical Decision Making 28, 845–849 (2008)
30. Neiger, et al.: Use of Social Media in Health Promotion: Purposes, Key Performance Indicators, and Evaluation Metrics. Health Promotion Practice 13, 159–164 (2012)
31. Gould, S.J.: Consumer attitudes toward health and health care: A differential perspective. The Journal of Consumer Affairs 22(1), 96–118 (1988)
32. Christensen, H.S.: Political activities on the Internet: Slacktivism or political participation by other means? First Monday (2011), http://firstmonday.org/ojs/index.php/fm/article/view/3336/2767 (retrieved April 21, 2013)