

# Reputation, Trust, Online Civic Engagement and its Impact on Virtual Social Skills

Anne Marie Warren, Sulaiman Ainin, Noor Ismawati Jaafar

**Abstract**— The evolution of a networked social movement, organized largely around digital tools and social media platforms, is reshaping civic engagement not only in the case of large-scale civic and political uprisings, but also in the context of daily engagement with personal and public matters. This study examined the factors that influence online civic engagement behavior. In addition, it also analysed the impact of civic engagement in social media on virtual social skills. Empirical data were collected via a survey questionnaire whereby a total of 619 responses were analysed using Structural Equation Modeling. It was found that reputation and trust influences online civic engagements and online civic engagement in turn has a predictive power on virtual social skills.

**Keywords**—virtual skills, civic engagement, trust, reputation

## I. Introduction

The ubiquitous social media landscape today is providing numerous new avenues for engaged and active civic participation (Raynes-Goldie and Walker 2008). According to Castells (2012), the evolution of a networked social movement, organized largely around digital tools and social media platforms, is reshaping civic engagement. Additionally, recent research developments on social media, suggest a strong relationship between social media use and civic engagement (Xenos et al. 2014). The impact of social media in general have been studied by many researchers, however the impact of online civic engagement have received less attention (Warren et al 2014). More importantly the impact of online civic engagement on virtual social skills has also received little attention. This study seeks to answer the following research questions: 1) what are the factors that influence online civic engagement behavior? 2) what is the impact of civic engagement in social media on virtual social skills?

The paper proceeds as follows; first, we introduce the theoretical development and hypotheses. In the next section, we describe the methodology used and in the subsequent section; we present the analysis and results from the structural equation modeling analysis. Finally, we discuss the study's contributions and implications.

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This research is sponsored by University of Malaya (Grant No RP004D-13ICT).

## II. Literature Review and Hypothesis Development

Virtual social skills are defined as a user's ability to build social relationships with others on the Internet. It is about the knowledge ('know what') and the skill ('how to') components of competence in online settings (Wang and Haggerty 2011). Virtual social skills recognize the differences in social activities between virtual settings and traditional settings. According to Wang and Haggerty (2011), one needs to have the knowledge and skill to comprehend and interpret a series of text expressions and emoticons (eg. :~(©) or the use of upper case letters and exclamation marks (!) in order to grasp emotions that people convey. It can be posited that individuals can improve their virtual social skills via the social media i.e. online civic engagement (Chau and Xu 2012). It will help people build social competence, in particular, virtual social skills, to perform effectively in their present virtual settings. Raynes-Goldie and Walker (2008) defines civic engagement as participation in any activities, individually or collectively, that is aimed at addressing social problems. In response to addressing social problems, online civic engagement will take place, which refers to any individual or collective effort that is aimed to address social issues using social media, such as Facebook, YouTube, and Twitter. Generally, online civic engagement may be categorised as civic expression (publication of information and dialogue) and civic actions (coordination of activities and lobbying decision makers). When individuals discuss about social matters (i.e. civic expression), they are more likely to mobilize and further engage in some plan for action (i.e. civic actions) (Tang and Lee, 2013). According to Valenzuela (2013), citizens' opportunities for planning civic activities via social media are likely to increase when there is greater deliberation and participation.. Thus, we postulate that online civic engagement behavior i.e. civic expressions (publication of information and dialogue) will bring about civic actions (coordination of activities and lobbying decision makers) i.e. there is a positive relationship between civic expressions and civic actions. We posit the following hypothesis:

H1: The greater the usage of social media for civic expressions, the greater the usage of social media for civic actions.

Online civic engagement primarily occurs when individuals are motivated to access the social media sites, review the issues and questions posted, follow the shared links for information, search for fuller versions of news, choose those postings they are able and willing to participate in, and take the time and effort to formulate and post a response to the

issues selected. Based on previous studies, the social exchange theory is one of the renowned and influential theories that investigate the dynamics in social interactions (Benbya and Belbaly 2010). It has been used in the field of IS at both the individual and organizational levels to investigate phenomenon, such as knowledge sharing (Kankanhalli et al. 2005; Wasko and Faraj 2005) and software development (Benbya and Belbaly 2010). Social media usage, particularly in social networking sites, implies active participation in social interactions with the online community. Reputation is among one of the individual motivations for social exchange. Reputation is defined as a measurement of 'one's character, skills, reliability, and other attributes important to exchanges' (Jones et al. 1997, p. 932).

Reputation has been suggested as encouraging employees to share knowledge on electronic networks, which helps build social capital among employees (Wasko and Faraj 2005). In addition to the literature on reputation, studies on motivational effect in game mechanics have been inspired by the theory of social comparison in designing incentive mechanisms (Farzan et al. 2008). These studies suggest that reputation acts as a predictor of increased participatory behavior. Past works also provide support that reputation can be used as a powerful benefit to increase contributions to online communities or in electronic networks (Wasko and Faraj 2005). As such, even with the absence of personal acquaintance, strong ties, or the likelihood of reciprocity among online users, the expectation of personal benefits, such as reputation can motivate social media users to engage in social issues. In this regard, this study proposes the following hypotheses:

H2a: Individuals who perceive that participation in social issues will enhance their reputation will engage more frequently in civic expressions.

H2b: Individuals who perceive that participation in social issues will enhance their reputation will engage more frequently in civic actions.

Among the key aspects of that can define the context for participatory behavior is trust (Kwak et al. 2004). IS literature has suggested that trust lowers users' perceived risks and uncertainties in encouraging transactions to take place on the Internet, in particular, e-commerce (Pavlou and Gefan 2004) and even adopting systems (Gefan et al. 2003). Although trust has become the strategy for dealing with uncertain outcomes or future and is considered to be one of the most reliable predictors for online participatory behavior (Gefan 2000) however, very few empirical analyses have incorporated different types of trust in the context of civic engagement. Past studies on social media participatory for content contributions utilized a unidimensional view of trust (Mou et al. 2013). The study expanded the understanding of trust from two fields (IS and sociology) into three types: trust propensity, trust in social media, and trust in institutions. Gefan, Karahanna and Straub (2003) defined trust propensity as the 'tendency to believe or not to believe in others and so trust them'. Trust propensity is sometimes referred to as personality-based trust (Gefan et al. 2003), interpersonal trust, or social trust (Taniguchi and Marshall 2012). Trust propensity has also been viewed as a

key factor that provides effective knowledge exchange (Adler 2001) and civic participation (Putnam 2000).

Based on previous studies on the influence of trust on online participatory (e.g. Gefan and Pavlou, 2006, Chiu et al., 2006), it is this belief that will encourage online civic efforts is trust propensity. In this research model, trust propensity is a salient construct that attempts to explain civic participatory behavior with respect to social media usage for addressing social issues. This is consistent with the study's intention to better understand the relative strengths of trust factors that influence the willingness to provide time and effort to engage in social issues using social media. Following the notion that trust propensity has the ability to reduce uncertainty and encourage participatory behavior, this study proposed the following hypotheses:

H3a: A higher level of trust propensity is related to a higher level of civic expressions.

H3b: A higher level of trust propensity is related to a higher level of civic actions.

Trust clearly plays an important role in online settings and is a key factor influencing the continued use of intentions towards websites and online services on the Internet (Gefan 2000; Shin 2010). In this study, trust in social media adopts past IS scholars' (McKnight et al. 2002; Dinev and Hart 2006) trusting beliefs for Internet use. This study's assessment of trust in social media extends this notion whereby higher trust should influence users to disclose personal civic expressions and take civic actions. Rather than studying a reflective behavior, such as willingness of users to do something, this research studies the effect trust in social media has on the actual voluntary participatory behavior itself. Thus, the following hypotheses were proposed:

H4a: A higher level of trust in social media is related to a higher level of civic expressions.

H4b: A higher level of trust in social media is related to a higher level of civic actions.

The third type of trust involves trust in institutions, such as the government, politicians, police, and the justice system. These are trusting beliefs that institutions are reliable, honest, fair, responsible, and trustworthy in carrying out their duty for society. Past research has suggested that the people's trust in institutions is likely to reduce the uncertainty entailed in their decision to engage in civic efforts. However, citizens who lack trust in institutions have been actively involved in activism (Pattie et al. 2003; Choudhary et al. 2012). The notion of these studies suggests that trust in institutions plays a role in fostering online civic engagement among citizens and maintaining social order. However, the direction and strength of this relationship is unclear. Thus, this research posits the following hypotheses:

H5a: A higher level of trust in institutions affects the level of civic expressions.

H5b: A higher level of trust in institutions affects the level of civic actions.

Virtual social skills are necessary to reflect an understanding of the emerging accepted business etiquette for online communications and the skill to cope therewith. With

the advent of Web 2.0, individuals have become more involved in social media-related activities both at work and at home. As a result, individuals become confident in their ability to accomplish tasks in online settings and are more skilful at teaming up with others (virtual social skill). Scholars have found evidence that suggests that experience in using ICT for seeking information and communicating had a positive relationship with virtual competence, which included virtual social skills (Wan et al. 2012). This study argues that in the course of individuals' online civic engagement efforts, they are exposed to skills and behaviors which are applicable to work situations. Such online civic experiences in addressing social issues will help people build social competence, particularly virtual social skills, to perform effectively in their present working virtual settings. Thus, this study formulated the following hypotheses:

H6a: A higher level of civic expressions is related to a higher level of virtual social skills.

H6b: A higher level of civic actions behavior is related to a higher level of virtual social skills.

### III. RESEARCH METHODOLOGY

Criteria sampling was applied in this study. This sample targeted active Malaysian Facebook users who are adult citizens working in Kuala Lumpur and Selangor (geographical areas with high social media penetration) based on the 2012 statistical report by the Malaysian Communication and Multimedia Commission (MCMC). The study concentrated on Facebook because it is the most highly used social media in the country with over 13 million users (Socialbakers, 2012). A total of 1,000 surveys were distributed in between January 21 and June 7<sup>th</sup>, 2013 and 619 completed and usable responses were analysed. The findings showed 49.8 per cent of the respondents were males and remaining were females. Most of the respondents were young working adults from the age category of 26 to 35 (49.3 per cent). The measurement scales for online civic engagement behavior were self-developed. Items were adapted from relevant literature (Denning 2000; Gil de Zuniga et al. 2012; Valenzuela et al. 2012) and additional ones were added to represent the content domain of the definition. The questionnaire was pilot-tested with four IS doctoral students to evaluate the phrasing and clarity of the indicators and adequacy of the domain coverage. The questionnaires were further refined prior to final administration of the survey. The development of the new measurements for online civic engagement resulted in two modes: civic expressions and civic actions. The scales applied were measured on a seven-point Likert scale of: "Never" (1) to "very often" (7). Trust propensity was measured with four items adapted from Pavlou and Gefan (2004). Trust in institutions was measured with four items that reflected the trust in the government, the police, courts, and the justice system. These items were adapted from Pattie et al. (2003) and Paxton (1999). The three items in Trust in social media were adapted from Dinev and Hart (2006). The five items measuring reputation were adapted from Wasko and Faraj (2005). The virtual social skills items were adopted from

Wang and Haggerty (2011). All of these items used seven-point, Likert-type scales anchored at "strongly disagree" (1) to "strongly agree" (7).

### IV. Results

We conducted various tests to assess the construct validity and reliability of the instrument using three sequential methods: examining normality, EFA, and confirmatory factor analysis (CFA). No items were culled for this study as none of the items exceeded the standard acceptable skewness of 3.0 and kurtosis of 10 (Kline 2005). The EFA analysis indicated that the four modes of online civic engagement behavior were merged to form two modes resulting in the following new factors – civic expressions and civic actions. Civic expressions comprise of the publication of information and dialogue modes, while civic actions included the coordination of action and lobbying decision makers. In all, the seven factors from the EFA accounted for 75.48 percent of variance in the data. The reliability of the constructs, as measured by Cronbach's Alpha, varied from 0.81 to 0.94 (Table 1). CFA was conducted following Hair et al. (2006). All factor loadings in the CFA model were significant with most of the items exhibiting values above 0.70, reflecting unidimensionality and convergent validity. In addition, the average variance extracted (AVE) for each construct was much higher than the recommended minimum value of 0.50 and the composite reliability ranged from 0.81 to 0.94. All items were significantly related to their specified constructs; thus, the data support the convergent validity of the CFA model. All correlations between constructs were less than the square root value of the AVE (Table 2). The results of the analysis also indicated the model fit for the measurement model. The  $\chi^2/df$  was 2.57; the root mean squared error of approximation (RMSEA) was 0.05. In addition, the normed fit index (NFI = 0.93), and confirmatory fit index (CFI = 0.96) were greater than the required value of 0.90. Finally, goodness-of-fit index (GFI = 0.92) and adjusted GFI (AGFI = 0.89) were greater than the threshold of 0.80. Thus, it can be concluded that the measurement model fit the data well.

Figure 1 depicts the results of the analysis. The results of fitting the structural model to the data indicated that the model had a reasonably good fit with almost all measures of fit in the acceptable range and above the minimum recommended values. The  $\chi^2/df$  is 2.77, which was well below the minimum level of 5.0 (Wheaton et al., 1977). The root mean squared error of approximation (RMSEA) was 0.054, which was well below the 0.08 limit (Hair et al., 2006). In addition, both the normed fit index (NFI = 0.92) and confirmatory fit index (CFI = 0.95) were greater than the required value of 0.90 (Hair et al. 2006). The goodness-of-fit index (GFI) was 0.90, while the adjusted GFI (AGFI = 0.88) was greater than the threshold of 0.80. These values indicated that the model fit the data well. The  $R^2$  values for civic expressions, civic actions, and virtual social skills were 0.11, 0.46, and 0.13 respectively. Figure 1 also depicts the structural model analysis results from AMOS, including path loadings for all hypothesized relationships for the research model. Civic expressions had a positive and



significant relationship with civic actions (H1:  $\beta = .46, p < 0.001$ ), thus supporting H1. The fairly high path coefficient for civic expressions suggests a greater importance of online postings and deliberations in influencing potential civic actions. Reputation was found to only have a positive and significant effect on civic expressions ( $\beta = .14, p < 0.01$ ) and no significant impact on civic actions ( $\beta = .01, p > 0.05$ ). Thus, the results supported H2a and did not provide support for H2b. Although the results suggested that lower levels of trust propensity is related to a higher level of civic expressions on Facebook, the relationship was not significant (H3a:  $\beta = -.05, p > .05$ ). In contrast, hypothesis 3b was supported as the increase of trust propensity had a positive and significant effect on civic actions. (H3b  $\beta = .19, p < .0001$ ). Hypothesis 4a posits that greater trust in social media will lead to higher levels of Facebook usage for civic expressions. The standardized path coefficient (.20) was positive and statistically significant ( $p < .01$ ). The results provided a positive directional support for H4a. The results further indicated that there was a positive albeit not significant relationship between trust in social media and civic actions (H4b:  $\beta = .01, p > .05$ ), thus, not supporting hypothesis H4b. Trust in institutions was significant ( $p < .05$ ) but in a negative direction with civic expressions ( $\beta = -.12$ ). As such, the statistical results supported H5a. Conversely, trust in institutions had a neither a positive nor a significant influence on civic actions (H5b:  $\beta = -.02, p > 0.05$ ), thus not supporting H5b. Overall, the different types of trust factors and reputation accounted for 11 percent of the variance for civic expressions. Accordingly, the same enablers along with civic expressions had an explanatory power ( $R^2$ ) of 46 percent for the variance for civic actions. Hypotheses 6a and 6b posited that a higher level of civic expressions and civic actions would be related to a higher level of virtual social skills. The results provide statistical support for H6 (H6a:  $\beta = .12, p < 0.01$ ; H6b:  $\beta = .17, p < 0.01$ ).

## v. DISCUSSION AND CONCLUSION

Overall, the examination of the online civic efforts indicated that citizens were advocating for issues via social media, particularly Facebook. They form an online community that supports and educates their online audience with similar intentions for the good of the community. The findings reinforced the works of scholars that indicated that social media was taking a role in defining areas for civic engagement (e.g. Gil de Zuniga et al. 2012; Valenzuela 2013). More importantly in this research, the findings suggest that online civic expressions are a strong and significant predictor in soliciting citizens to plan and engage in civic actions addressing the prevalent social issues. It denotes an opportunity for relevant agencies or activists to incorporate the usage of Facebook in their daily tasks in addressing social problems with the public.

In support of previous research (Xu et al. 2010), trust propensity was found to significantly influence online civic actions. Contrary to the study's expectation, trust propensity did not have a significant impact on online civic expressions. This outcome suggests that expressing concerns and venting

frustrations on social problems need not take into consideration the tendency of whether people were trustworthy. One explanation could be that the social problems were already associated with the lack of trust in people. In this sense, trust was already seen as a problem. So it would only be logical that there would be no trust to begin with. Trust in institutions was significant but in a negative direction with civic expression. This finding supports recent events in which citizens who lack trust in institutions were actively involved in activism (Choudhary et al. 2012). In this context, participants who lacked trust in the government, police, and justice systems were more likely to engage in civic expressions by posting articles and hold discussions on the problems to educate and inform the public. Surprisingly, lower levels of trust in institutions had no significant impact on the level of civic actions. On a different note, a higher level of trust in social media was found to be related to a higher level of participation in civic expressions. The results support the notion that trust in the Internet is an important condition for online participatory behavior or online transactions, as indicated by past IS literature (Dinev and Hart 2006; Bülbül 2013). The findings also suggest that while trust in social media or the Internet could be necessary in online participatory behavior it is not a sufficient condition for online civic actions to take place on Facebook. In this sense, this outcome supports the findings Corbitt, Thanasankit and Yi (2003) that a higher level of trust in technology will not necessarily correlate to a reduced level of risk perception, thus leading to lower levels of online participatory behavior.

Reputation also played a role in influencing individuals to engage in civic expressions with regard to the prevalent social problems on Facebook. This finding supports the notion that reputation encourages online participatory behavior as indicated in the findings of past literature (Tang et al. 2012). Reputation seems to discourage online civic actions as individuals do not leverage the importance of personal reputation on networks that are informal and are less likely to punish the misbehavior of its members. In such instances, these users may view that their contributions are being less valued and appreciated. Interestingly, online civic expressions have as much predictive power as online civic actions on virtual social skills suggesting equal importance in the development of virtual social skills.

In addition, this finding echoes the notion of the virtualization of society, how the use of newer daily life technologies (Facebook, Twitter, etc.) transfers into the workplace (Wang and Haggerty 2011). In this study, the transfer that took place was the development of individuals' virtual social skills at work.

Drawing on the social exchange theory, this study offers a social media use for civic engagement model that explains how social media is influenced and shaping civic engagement in different modes and the impact of these modes have on users' virtual social skills.

Table 1. Exploratory Factor Analysis and Cronbach's Alpha. (Loadings below 0.4 excluded)

Items	Constructs						
	CA	TI	TP	CE	REP	TS	VSS
Create social issue related event invitations on Facebook.	0.70						
Confirm assistance with others on social issue events on Facebook.	0.77						
Plan activities on social issues with others on Facebook.	0.83						
Make a donation via Facebook.	0.85						
Sign a petition via Facebook.	0.81						
Vote for a cause via Facebook.	0.70						
Engaging in social issues improves my reputation at work.					0.93		
Engaging in social issues allows me to earn respect from others at work.					0.93		
Engaging in social issues increases my social standings among friends.					0.93		
Post links on social issues on Facebook.				0.87			
Post images/videos on social issues on Facebook.				0.93			
Post news on social issues on Facebook.				0.90			
Exchange opinions on social issues on Facebook.				0.60			
Most people keep promises.			0.79				
Most people are honest.			0.95				
Most people are trustworthy.			0.94				
Most people keep commitments.			0.80				
Facebook handles personal information competently.						0.87	
I feel safe to post information on Facebook.						0.88	
Facebook has sufficient privacy settings.						0.83	
The government can be trusted.		0.77					
The police can be trusted.		0.92					
The courts in the country can be trusted.		0.96					
The justice system is fair.		0.91					
In virtual settings at work, I am able to put myself in other people's positions to understand their point of view.							0.84
In virtual settings at work, I am able to socialize easily.							0.81
In virtual settings at work, I am good at sensing the motivations and hidden agendas of others.							0.87
Eigen value	6.95	4.28	2.55	2.09	1.68	1.53	1.31
% of variance	25.72	15.85	9.43	7.75	6.21	5.66	4.84
Cronbach's Alpha	0.87	0.92	0.90	0.89	0.94	0.85	0.81

Note: CA – Civic Action; TI – Trust in Institutions; TP – Trust Propensity; CE – Civic Expressions; REP – Reputation; TS – Trust in social media; VSS – Virtual Social Skills

Table 2 Composite Reliability, AVE and Square Root of the AVE

	CR	AVE	VSS	CE	CA	TP	TS	TI	REP
Virtual Social Skills (VSS)	0.81	0.59	0.77						
Civic Expressions (CE)	0.89	0.67	0.31	0.82					
Civic Actions (CA)	0.87	0.54	0.31	0.62	0.73				
Trust_Propensity (TP)	0.87	0.64	0.17	0.07	0.26	0.80			
Trust in Social Media (TS)	0.86	0.67	0.26	0.20	0.20	0.36	0.82		
Trust in Institutions (TI)	0.92	0.74	0.19	0.02	0.04	0.26	0.34	0.86	
Reputation (REP)	0.94	0.83	0.39	0.26	0.23	0.23	0.37	0.25	0.91

Note: Values in diagonal represent the square root of the average variance extracted

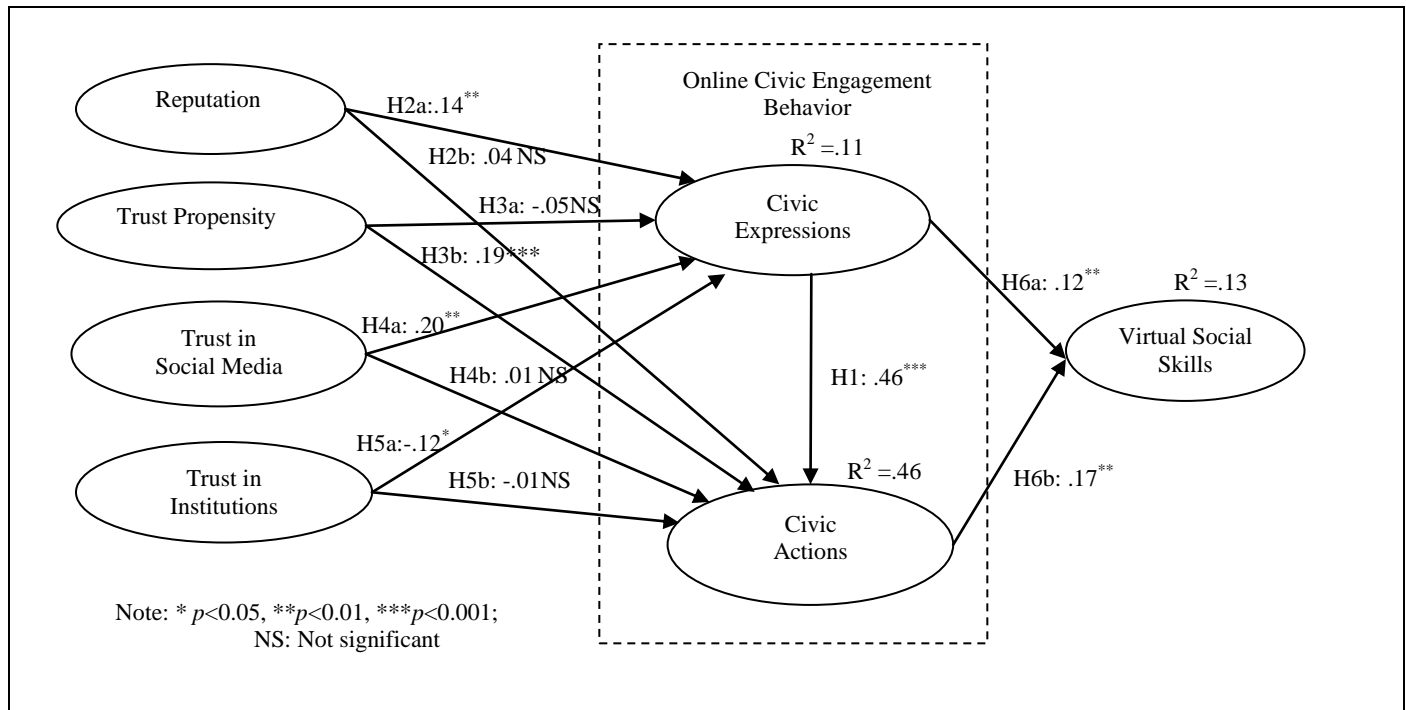


Figure 1. Statistical Results for Structural Equation Modeling

## References

The full list of references can be obtained from the authors.

- [1] Adler, P.S. 2001. "Market, Hierarchy, and Trust: The Knowledge Economy and the Future of Capitalism," *Organization Science* (12:2), pp. 215-234.
- [2] Benbya, H., and Belbaly, N. 2010. "Understanding Developers' Motives in Open Source Projects: A Multi-Theoretical Framework," *Communications of the AIS* (27), pp. 589-610.
- [3] Briones, R.L., Kuch, B., Liu, B.F., and Jin, Y. 2011. "Keeping up with the Digital Age: How the American Red Cross Uses Social Media to Build Relationships," *Public Relations Review* (37:1), pp. 37-43.
- [4] Bülbül, D. 2013. "Determinants of Trust in Banking Networks," *Journal of Economic Behavior & Organization* (85:0), pp. 236-248.
- [5] Castells, M. 2012. *Networks of Outrage and Hope: Social Movements in the Internet Age*. Cambridge, UK: Polity.
- [6] Chau, M., and Xu, J. 2012. "Business Intelligence in Blogs: Understanding Consumer Interactions and Communities," *MIS Quarterly* (36:4), pp. 1189-1216.
- [7] Chiu, C.-M., Hsu, M.-H., and Wang, E.T. 2006. "Understanding Knowledge Sharing in Virtual Communities: An Integration of Social Capital and Social Cognitive Theories," *Decision Support Systems* (42:3), pp. 1872-1888.
- [8] Corbitt, B.J., Thanasankit, T., and Yi, H. 2003. "Trust and E-Commerce: A Study of Consumer Perceptions," *Electronic Commerce Research and Applications* (2:3), pp. 203-215.
- [9] Correa, T., Hinsley, A.W., and de Zúñiga, H.G. 2010. "Who Interacts on the Web?: The Intersection of Users' Personality and Social Media Use," *Computers in Human Behavior* (26:2), pp. 247-253.
- [10] Denning, D. 2000. "Activism, Hacktivism, and Cyberterrorism: The Internet as a Tool for Influencing Foreign Policy.," *The Computer Security Journal* (XVI (Summer)), pp. 15-35.
- [11] Dinev, T., and Hart, P. 2006. "An Extended Privacy Calculus Model for E-Commerce Transactions," *Information Systems Research* (17:1), pp. 61-80.
- [12] Farzan, R., Dimicco, J., M., Dugan, C., Geyer, W., and Brownholtz, B. 2008. "Results from Deploying a Participation Incentive Mechanism within the Enterprise.," *Proceedings of the SIGCHI conference on human factors in computer systems (CHI'2008)*, Florence: ACM Press.
- [13] Fornell, C., and Larcker, D.F. 1981. "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of marketing research* (18:1), pp. 39-50.
- [14] Gil de Zúñiga, H., Jung, N., and Valenzuela, S. 2012. "Social Media Use for News and Individuals' Social Capital, Civic Engagement and Political Participation," *Journal of Computer-Mediated Communication* (17:3), pp. 319-336.
- [15] Grönlund, K., and Setälä, M. 2012. "In Honest Officials We Trust: Institutional Confidence in Europe," *The American Review of Public Administration* (42:5), pp. 523-542.
- [16] Hair Jr., J.F., Black, W.C., Babin, B.J., Anderson, R.E., and Tatham, R.L. 2006. *Multivariate Data Analysis*, (6 ed.). NJ, USA: Prentice-Hall, Upper Saddle River.
- [17] Jones, C., Hesterly, W.S., and Borgatti, S.P. 1997. "A General Theory of Network Governance: Exchange Conditions and Social Mechanisms," *The Academy of Management Review* (22:4), pp. 911-945.

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