

Do Facebook and Video Games Promote Political Participation Among Youth?

Evidence from Singapore

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Abstract: *The importance of cultivating political engagement among youth has been widely discussed and its value for a well-functioning democratic society reaffirmed by numerous scholars. This study seeks to understand the relationship between the use of emerging platforms for online sociability and entertainment and political participation among young Singaporeans. Specifically, we focus on the intensity of Facebook use and frequency of video gaming, as well as more specific civic activities taking place on these platforms. The findings indicate that the intensity of Facebook use is related to both online and traditional political participation, while civic gaming is associated with online participation only. There is also evidence linking membership in civic/political Facebook groups with increased online participation. Lastly, although the results suggest that online participation may be an important driver of traditional political participation, the role of traditional media, particularly newspapers, should not be easily dismissed.*

Keywords: Facebook, video games, political participation, youth, Singapore

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Scholars have stressed the importance of civic and political engagement among youth for education (Putnam, 2001), for promoting just social outcomes (Levine, 2008) and for addressing public concerns that cannot be tackled by legislation (Boyte & Kari, 1996). Still, most liberal democracies have experienced a decline in civic and political engagement with this downward pattern being particularly evident among young people. Consequently, many commentators welcomed the arrival of the Internet in the mid-1990s hoping that the new technology would reverse this trend, even though purely technological solutions could hardly be sufficient for repairing the problems of democracy (Dahlgren, 2007).

In recent years, the rise of social media has been accompanied by renewed calls for increased participation, especially among young citizens who are frequently disengaged from traditional politics. For instance, Jenkins (2009) emphasizes the need of educating the young on how to use new media effectively in order to ensure equal participation. Coleman argues that picking up skills required for civic participation is necessary and that this “civic apprenticeship” is “required to exercise responsible judgment in a risky and complex world” (Coleman, 2008, p. 191). Others argue that the Internet, with its network structure, is particularly suited for decentralized networked communications and informal modes of belonging that characterize many youth movements of today (Norris, 2007; Olsson, 2008). Thus, the search is not only for new means for reinvigorating

traditional civic and political participation, but also for new ways of understanding what authentic participation means for young citizens.

Studying new forms of participation may be of even greater importance in societies with weak traditions of civic and political engagement than in established democracies with longer histories of active citizen participation. While it is tempting to speak of revolutionary changes, it seems more accurate to speak of a gradual evolution of political environments and behaviors characterized by a greater polyphony (or sometimes cacophony) of voices in the public sphere.

Singapore, despite being one of the most wired countries in Asia, is still characterized as having an underdeveloped and constrained civic society (Soh & Yuen, 2006). Still, in recent years, citizens of Singapore have actively utilized the Internet to voice their political opinions and organize public gatherings and protests (Skoric, Poor, Liao, & Tang, 2011). The aim of this study is take a closer look at digitally-mediated social interactions and environments that dominate the lives of young Singaporeans and analyze their contribution to traditional and emerging forms of political participation. More specifically, we seek to examine whether new media platforms, such as social network sites (SNS) and video games could provide suitable new channels through which young people in Singapore could practice their civic skills and actively engage in political life.

1. Literature Review

1.1. Facebook and Political Participation

At the time of writing, Facebook is the most popular SNS in the world and it has also achieved phenomenal popularity in Singapore. One estimate from December 2010 (Socialbakers, 2011) cited 2.27 million unique Facebook visitors in a city-state with a population of only 5.08 million (Statistics Singapore, 2010).

In recent years, news reports have frequently portrayed social media such as Facebook and Twitter as playing a key role in social upheavals and political protests in countries such as Iran and Egypt (e.g. Grossman, 2009; Shane, 2011). Still, some commentators have criticized this new wave of techno-optimism, suggesting that social media are neither a necessary nor sufficient condition for transitioning to political democracy (Gladwell, 2010; Morozov, 2011). Given that, a more theoretically-driven approach is certainly needed, focusing on specific technological affordances of social media platforms and analyzing their socio-political implications.

For example, social network sites like Facebook are characterized by low cost, high speed and precise targeting of recipients, which are all features that foster fast dissemination of political information and efficient mobilization of citizens. Furthermore, various other features of Facebook facilitate the provision of identifying and reputational information which are all important for reducing uncertainty when engaging in online interactions, thereby fostering the development of norms of trust (Berger & Calabrese, 1975). As trust is necessary in promoting civic engagement and participation in collective action (Putnam, 2004), Facebook seems well-suited for promoting civic and political engagement.

Recent studies conducted in the United States report a positive relationship between Facebook use and civic and political engagement (Pasek & Romer, 2009; Valenzuela, Park, & Kee, 2009). More specifically, Facebook features such as “groups” and “Events” were found to promote political discussion and mobilization (Valenzuela, Park, & Kee, 2009). Still, it is important that to note that Facebook is primarily used for maintenance and extension of existing offline networks (Joinson, 2008), rather than for initiating completely new relationships. Thus, its role among young citizens interested and engaged in political life may be quite significant, but it likely to be much weaker among those who belong to the cyber-enclaves of citizens not interested and/or disengaged from politics.

1.2. Gaming and Political Participation

There is little dispute that video games are one of the most dominant forms of entertainment for youths around the world. In Singapore, video game playing has become one of the key sources of entertainment among youth and the state has provided significant investments in the gaming industry (Siew, 2007).

In spite of their media-perpetuated reputation as the “spoilers of youth”, video games represent another new interactive platform that could potentially encourage civic and political engagement. Studies done in the United States have found that some forms of game-playing have the potential to increase civic participation (Kahne, Middaugh, & Evans, 2009). In Japan, online gaming communities were found to increase social tolerance by bringing together diverse populations around shared (gaming) contexts (Kobayashi, 2010). In addition, civic activities, like civic debate and deliberation, seem to take up a substantial share of online interactions in virtual worlds (Bers & Chau, 2006). Thus, by providing young people with a training ground for practicing civic skills, online games could allow them to mature into good and engaged citizens (Bers, 2008).

Studies have also linked playing of massively multiplayer online games (MMOs) and social network games (SNG) on Facebook with bridging social capital (Steinkuehler & Williams, 2006; Wohn, Lampe, Ellison, Wash, & Vitak, 2011). The former type of games may be particularly important for providing diverse social and civic experiences as they typically involve playing in groups or guilds which are often composed of players from heterogeneous populations. Therefore, it could be argued that although visits to bowling alleys may be in decline (Putnam, 2000), it is possible that young people have found new places and means to informally socialize and have fun.

1.3. Online and Traditional Political Participation in Singapore

In recent years, civic activists in Singapore have started actively harnessing the Internet, including social media like Facebook, to promote various causes ranging from environmental awareness to the welfare of domestic helpers (Tan, 2008). For instance, activists seeking to repeal a statute banning gay sex in Singapore set up a Facebook group to generate awareness about the law and encouraged its members to sign an online petition that was eventually presented to the Prime Minister. Furthermore, following Singapore Government's recent decision to relax restrictions on outdoor demonstrations, a number of activists have started using Facebook to disseminate information about their protests and mobilize citizens (Skoric et al., 2011).

Arguably, the above examples of cause-oriented political actions are as important to democracy today as traditional participation such as voting during the elections (Norris, 2007). Moreover, these cases are noteworthy because they demonstrate how online political activities may be converted into more traditional forms of political participation, including protests, boycotts and petitions. In Singapore, online activism can be viewed as a form of proto-activism and its importance thus cannot be underestimated; for a number of young people, online participation is a gateway to meaningful engagement in political life.

Given the above evidence regarding the political affordances of Facebook and video games, this study proposed to examine the relationships between Facebook use, video-gaming and political participation. Specifically, this study posits the following:

H1: Facebook users are more likely to participate politically than the non-users.

H2: Intensity of Facebook use is positively related to a) online and b) traditional political participation.

RQ1: Is frequency of game-playing related to a) online and b) traditional political participation?

H3: Membership in civic/political Facebook groups is positively related to a) online and b) traditional political participation.

H4: Civic gaming is positively related to a) online and b) traditional political participation.

RQ2: Is online political participation associated with traditional political participation?

2. Method

The data for this study was obtained through a random digit dialing (RDD) telephone survey of young adults in Singapore aged 18 to 29 years conducted in February 2009. Using the American Association for Public Opinion Research (2006) formula RR_3 , a response rate of 40% was obtained. A final sample of 385 completes was compared with the statistics from the Singapore Youth Research Network (2006) as well as the 2008 Yearbook of Statistics (Statistics Singapore, 2008b). The sample was found to reasonably approximate the general population in terms of gender, and race and household income. However, in terms of education level, higher-educated people were slightly over-represented. The mean age of the sample was 21.8 ($SD = 3.28$) and 53.5% of respondents were female, while the median household income was in the range of S\$2000 to S\$3999.

Out of 385 respondents, 249 (64.7%) had a Facebook account, 191 (76.7%) were members of at least one Facebook Group, and 32 (16.8%) of these Group users were members of at least one Facebook Group that addressed a political concern or public affair in Singapore. All 385 respondents reported having played gaming consoles like Xbox, Playstation or Wii, 224 (58.1%) reported having played portable gaming devices like PSP, DS or Gameboy, 242 (62.9%) reported playing games on desktop or laptop, 324 (84.2%) played games on a mobile phone or handheld organizers and 235 (61.0%) played games online using either computer, game console or other devices.

2.1. Facebook Use

Respondents who were identified as Facebook users were asked a series of questions based on the Facebook Intensity scale (Ellison, Steinfield, & Lampe, 2007). These questions include the number of friends they had and amount of time spent on Facebook. The scale also required respondents to indicate the extent to which they agreed with statements indicating their attachment to Facebook on five-point Likert scales (1 = Strongly Disagree; 5 = Strongly Agree). An example of a statement is: Facebook is part of my everyday activity. The Facebook Intensity scale was shown to be quite reliable (Cronbach's $\alpha = .74$). In order to assess civic/political uses of Facebook, respondents were asked to respond either Yes or No to the following item: At least one Facebook group that I've joined addresses a public affairs or political concern in Singapore.

2.2. Video Game Play

The measures for game playing were obtained from the 2008 Pew Gaming and Civic Engagement Survey (Lenhart, Kahnem, Middaugh, Evans & Vitak, 2008). Interviewees were asked about their frequency of game play in a six-point ordinal scale with options ranging from 1 = several times a day to 6 = less often than above mentioned. Respondents were asked whether they played games on different equipments (game console, computer, mobile phone, handheld organizer, or on the Internet) whether they owned it personally.

A scale consisting of four items measured on a 3-point scale (1 = often, 2 = sometimes, 3 = never or 9 = does not apply in the games you play) was used to access the extent to which game players engaged in civic activities when playing games. An example of an item in the scale is: How often do you play a game where you learn about a problem in society. The civic gaming scale had good reliability with Cronbach's $\alpha = .82$.

2.3. Political Participation

A scale measuring the likelihood of traditional political participation was adapted from Yeo (2003) and Milbrath (1965). The scale consisted of eight items that determined the respondents' likelihood to engage in activities like exposing themselves to political information in Singapore and initiating a discussion with their family and friends on public issues in Singapore. Respondents indicated their likelihood of engaging in the above activities according to a 6-point scale, ranging from 1 = Very Unlikely to 6 = Very Likely. Cronbach's α for the scale yielded a value of .79, indicating good reliability.

Online political participation was measured using a four-item scale. Respondents were asked to indicate the frequency at which they participated in various online political activities on a 5-point scale, ranging from 1= Not Frequent at all to 5= Very Frequently. Examples of the items in the scale are: I have visited websites of the government and public administration institutions in Singapore; I have signed an online petition related to politics or public affairs in Singapore. Cronbach's α for the scale yielded a value of .68, indicating satisfactory reliability.

2.4. Control Variables

Media attention questions, adapted from Zhang & Chia (2006) were asked to assess the amount of attention respondents paid to political issues or public affairs in newspapers (good reliability with Cronbach's α = .79) and television (good reliability with Cronbach's α = .85). Both measures utilized a 7-point scale, ranging from 1 = Little Attention to 7 = Very Close Attention. Lastly, a set of standard demographic questions was asked. These included age, highest educational level achieved (including current level pursued), and monthly household income.

3. Results

3.1. Demographics, Media Attention, Facebook Use and Political Participation

Out of the 385 respondents, 249 were identified as Facebook users, and 136 participants were classified as non-users. An independent samples t-test revealed that Facebook users were significantly younger, better educated, had higher household income and paid more attention to newspapers. As hypothesized in H1, Facebook users indicated greater likelihood of participation in political activities ($M = 20.06$, $SD = 6.53$) as compared to non-Facebook users ($M = 18.19$, $SD = 6.14$; $t(383) = 2.74$, $p < .01$).

3.2. Predicting Political Participation with Facebook Use and Gaming

The analyses, utilizing hierarchical linear regressions (Table 1), show only a marginally significant relationship between the intensity of Facebook use and online political participation (H2a). However, the intensity of Facebook was found to be positively related to traditional political participation (H2b). The frequency of video gaming was not significantly associated with either online or traditional participation in politics (RQ1). No significant relationship was found between membership in civic/political Facebook Groups and traditional participation (H3b), but this relationship was significant in the case of online participation (H3a). The findings also supported H4a and showed that civic gaming was positively related to online political participation. On the other hand, no significant relationship was found between civic gaming and traditional political participation (H4b).

Table 1: Hierarchical Regressions Predicting Political Participation from Demographic, Media Use, Facebook and Gaming Variables (n = 231)

	Online Political Participation	Traditional Political Participation
	β	β
Demographics		
Age	.06	.12 ⁺
Highest Level of Education	.07	-.05
Income	-.03	.13
R^2 change (%)	.02	5.1**
Media Use		
Newspaper Attention	.30**	.25**
TV Attention	.05	.13
R^2 change (%)	11.8**	12.5**
Frequency		
Frequency of game-play	.05	-.01
Intensity of Facebook use	.11 ⁺	.14*
R^2 change (%)	2.4*	2.2*
Civic Activities		
Group Facebook Use	.15*	.08
Civic Gaming	.15*	.09
R^2 change (%)	3.8**	1.1
Total R^2 adj. (%)	16.7	17.6
F	6.15**	6.54**
⁺ $p < .1$, * $p < .05$, ** $p < .01$.		

3.3. Predicting Traditional Online Political Participation with Online Political Participation

To assess the relationship between online political participation and traditional political participation, hierarchical regression analyses were again carried out using online political participation as predictor of traditional political participation (Table 2). Demographic and media attention variables were included in the analyses as controls. The regression analyses showed that online political participation was positively related to traditional political participation, accounting for 12 per cent of variance in traditional participation.

Table 2: Hierarchical Regressions Predicting Traditional Political Participation from Demographic, Media Use Variables, and Online Political Participation (n = 373)

	Traditional Political Participation
	β
Demographics	
Age	-.02
Highest Level of Education	-.04
Income	.12*
R^2 change (%)	.04**
Media Use	
Newspaper Attention	.13*
TV Attention	.14*
R^2 change (%)	.11**
Political Participation	
Online Political Participation	.36**
R^2 change (%)	.12**
Total R^2 adj. (%)	25.5
F	22.33**
* $p < .05$, ** $p < .01$.	

4. Discussion and Conclusion

The findings indicate that the intensity of Facebook use was related to both online (marginally) and traditional political participation; however, Facebook use accounted for a relatively small portion of variance in political participation. In addition, we found that being a member of a civic/political Facebook group was associated with an increased likelihood of engaging in other forms of online participation such as signing online petitions and reading political blogs. Our findings are quite similar to those of Valenzuela, Park & Kee (2009) indicating that both general intensity of Facebook use as well as membership in politically-oriented Facebook groups are predictors of political participation among youth.

What about the relationship between gaming and participation? The results suggest a positive association between civic gaming and online political participation, but no such link was found in the case of traditional participation. Moreover, general frequency of gaming was not a predictor of either online or traditional political participation. This confirms the expectations that specific characteristics of gaming experiences and not the frequency of gaming could help promote online participation among youth in Singapore, in line with the conclusions from a study conducted in the United States (Kahne, Middaugh & Evans, 2009).

We also found a robust relationship between online and traditional political participation, which solidifies the claims regarding the spill-over effects of online participation on traditional participation, which were until now largely based on anecdotal evidence. This suggests that online forms of proto-activism have real and significant implications for traditional political participation, and paints a rather optimistic view regarding the political role of social media and games in the lives of young citizens. This is of particular importance in the countries with weak traditions of civic and political engagement and/or with limited experiences with political democracy.

Interestingly, our findings also re-iterate the importance of attention to political and public affairs news in traditional media, with attention to newspapers showing moderately strong relationship with both online and traditional participation; this is all in line with the previous research in this area (McLeod, Daily, Guo, Eveland, Bayer, Yang & Wang, 1996; Shah, McLeod & Yoon, 2001). A recent qualitative study conducted in Singapore reached similar conclusions regarding the importance of traditional media for engagement, suggesting that young political activists use social media to engage rather than circumvent traditional media gatekeepers (Skoric et al., 2011).

In conclusion, this study indicates that Facebook use and civic gaming experiences are linked with both online and traditional forms of political participation among young Singaporeans. We suggest that specific affordance of social network sites like Facebook as well as exposure and engagement with civic/political contents in video games create opportunities for young people to hone their political skills, while reducing the cost of participation. However, it would be premature to prescribe "Facebook-ing" and video gaming as activities for increasing political participation among the youth. First, it is entirely possible that more civically-minded and politically active young citizens are also more likely to be drawn to political activities and contents on these platforms. Second, the cross-sectional nature of the data paired with the limited age range in the sample does not allow us to examine longer-term changes in media use and exposure patterns which may be crucial for understanding the subsequent impact on participation. Although the lack of any negative relationships between the measures of participation and social media/games use is a reason for cautious optimism, we suggest that future studies should try to capture changes in the patterns of mediated experiences across different cohorts of citizens. This would help us reach a more definitive answer to the question of whether we are bowling online or alone.

References

- Bers, M. U. (2008). Civic identities, online technologies: From designing civics curriculum to supporting civic experiences. In W. L. Bennett (Ed.), *Civic Life Online: Learning How Digital Media Can Engage Youth* (pp. 139–160). Cambridge, MA: The MIT Press.
- Bers, M. U., and Chau, C. (2006). Fostering civic engagement by building a virtual city. *Journal of Computer Mediated Communication*, 11(3). Retrieved September 10, 2009, from <http://jcmc.indiana.edu/vol11/issue3/bers.html>
- Berger, C. R., & Calabrese, R. J. (1975). Some explorations in initial interaction and beyond: Toward developmental theory of interpersonal communication. *Human Communication Research*, 1(2), 99-112.
- Boyte, H. C., & Kari, N. N. (1996). *Building America: The democratic promise of public work*. Philadelphia: Temple University Press.

- Coleman, S. (2008). Doing IT for themselves: Management versus autonomy in youth e-citizenship. In W. L. Bennett (Ed.), *Civic Life Online: Learning How Digital Media Can Engage Youth* (pp. 189-206): The MIT Press.
- Dahlgren, P. (Ed.) (2007). *Young Citizens and New Media: Learning for Democratic Participation*. New York: Routledge.
- Socialbakers. (2011). *Singapore Facebook Statistics*. Retrieved February 19, 2011, from <http://www.socialbakers.com/facebook-statistics/singapore#chart-intervals>
- Ellison, N., Steinfield, C., & Lampe, C. (2007, July). The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 143–1168.
- Euromonitor International. (2008). *Toys And Games in Singapore*. Retrieved October 15, 2009, from http://www.euromonitor.com/Toys_And_Games_in_Singapore
- Gladwell, M. (2010, October 4). Small change: Why the revolution will not be tweeted. *The New Yorker*. http://www.newyorker.com/reporting/2010/10/04/101004fa_fact_gladwell
- Grossman, L. (2009). Iran Protests: Twitter, the medium of the movement. *Time*. Retrieved March 17, 2010, from <http://www.time.com/time/world/article/0,8599,1905125,00.html>
- Jenkins, H. (2009). *Confronting the challenges of participatory culture: Media education for the 21st century*. The MacArthur Foundation. Retrieved March 31, 2010, from http://digitalllearning.macfound.org/atf/ct/%7B7E45C7E0-A3E0-4B89-AC9C-E807E1B0AE4E%7D/JENKINS_WHITE_PAPER.PDF
- Joinson, A. N. (2008). 'Looking at', 'looking up' or 'keeping up with' people? Motives and uses of Facebook. In M. Czerwinski, Lund, A. M., Tan, D. S. (Eds.), *Proceedings of the 2008 SIGCHI Conference on Human Factors in Computing Systems*, 1027–1036. New York: The Association for Computing Machinery.
- Kahne, J., Middaugh, E., Evans, C. (2009). *The civic potential of video games*. The John D. and Catherine T. MacArthur Foundation Reports on Digital Media and Learning. The MIT Press.
- Kobayashi, T. (2010). Bridging social capital in online communities: Heterogeneity and social tolerance of online game players in Japan. *Human Communication Research*, 36(4), 546-569.
- Lenhart, A., Kahne, J., Middaugh, E., Macgill, A., Evans, C., & Vitak, J. (2008). *Teens, video games and civics*. Pew Internet & American Life Project, September 16, 2008. Retrieved October 20, 2009, from <http://www.pewinternet.org/Reports/2008/Teens-Video-Games-and-Civics.aspx>
- Levine, P. (2008). A public voice for youth: The audience problem in digital media and civic education. In W. L. Bennett (Ed.), *Civic Life Online: Learning How Digital Media Can Engage Youth*. (pp. 119-138). Cambridge, MA: The MIT Press.
- McLeod, J. M., Daily, K., Guo, Z., Eveland, W. P., Jr., Bayer, J., Yang, S., & Wang, H. (1996). Community integration, local media use and democratic processes. *Communication Research*, 23(2), 179–209.
- Milbrath, L. W. (1965). *Political Participation*. Chicago: Rand McNally.
- Morozov, E. (2011). *The Net Delusion: The Dark Side of Internet Freedom*. New York: PublicAffairs.
- Norris, P. (2007). Political activism: New challenges, new opportunities. In C. Boix & S. Stokes (Eds.), *The Oxford Handbook of Comparative Politics* (pp. 628–652). Oxford: Oxford University Press.
- Olsson, T. (2008). The practices of Internet networking – a resource for alternative political movements. *Information, Communication & Society*, 11(5), 659–674.
- Pasek, J., More, E., & Romer, D. (2009). Realizing the Social Internet? Online Social Networking Meets Offline Civic Engagement. *Journal of Information Technology and Politics*, 6(3/4), 197-215.
- Putnam, R. (2001) Community-based social capital and educational performance. In D. Ravitch & J. P. Viteritti (Eds.), *Making Good Citizens: Education and Civil Society*, New Haven, CT: Yale University Press, 69-72.
- Putnam, R. D. (2004). *Bowling together*. OECD Observer. Retrieved July 28, 2008, from http://www.oecdobserver.org/news/fullstory.php/aid/1215/Bowling_together.html
- Shah, D. V., McLeod, J. M., & Yoon, S. (2001). Communication, context and community: An exploration of print broadcast, and internet influences. *Communication Research*, 28(4), 464–506.
- Shane, S. (2011). Spotlight again falls on Web tools and change. *The New York Times*. Retrieved February 28, 2011, from http://www.nytimes.com/2011/01/30/weekinreview/30shane.html?_r=1&ref=egypt
- Siew, A. (January 11, 2007). Digital media: S'pore to fund research in 3 niche areas. *The Straits Times*. Retrieved September 10, 2009, from <http://www.asiamedia.ucla.edu/article.asp?parentid=60829>
- Skoric, M. M., Poor, N. D., Liao, Y., & Tang, S. W. H. (2011). Online organization of an offline protest: From social to traditional media and back. *Proceedings of the Hawaii International Conference on System Sciences*, Kauai, Hawaii, January 4-7, 2011.
- Soh, E., & Yuen, B. (2006). Government-aided participation in planning Singapore. *Cities*, 23(1), 30–43.
- Statistics Singapore (2010). *Statistics: Population (Mid-year estimates)*. Retrieved February 19, 2011, from <http://www.singstat.gov.sg/stats/themes/people/hist/popn.html>
- Steinkuehler, C., & Williams, D. (2006). Where everybody knows your (screen) name: Online games as "third places." *Journal of Computer-Mediated Communication*, 11(4), 885-909.
- Tan, W. (2008, 9 August). Rise of the online activists. *The Straits Times*. Retrieved December 4, 2008, from the Factiva database.
- Valenzuela, S., Park, N., & Kee, K. F. (2009). Is there social capital in a social network site?: Facebook use and college students' life satisfaction, trust, and participation. *Journal of Computer-Mediated Communication*, 14(4), 875-901
- Yeo, B. (2003). *Internet, Participation and Protest Potentials*. Unpublished master's thesis. Nanyang

Technological University, Singapore.

Wohn, D. Y., Lampe, C., Ellison, N., Wash, R., & Vitak, J. (2011, January) The "S" in social network games: Initiating, maintaining, and enhancing relationships. In *Proceedings of the 44th Annual Hawaii International Conference on System Sciences*, Kauai, HI, USA.

Zhang, W., & Chia, S. C. (2006). The effects of mass media use and social capital on civic and political participation. *Communication Studies*, 57(3), 277–297.

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