

Bowling Online, Not Alone: Online Social Capital and Political Participation in Singapore

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Introduction

Since gaining independence in 1965, the Singapore government has relentlessly pursued economic growth and prosperity, while at the same time exercising tight political controls, which has largely eroded traditional political participation among the citizens (George, 2003; Rodan, 1998). In the economic domain, Singapore's performance has indeed been very impressive; the country was recently ranked as the second in the world regarding the Global Potential Competitiveness and rated as the Most Competitive Asian Economy, among numerous other accolades (Economic Development Board, 2007). At the same time, its democratic record has been less than stellar, earning Singapore a "partly free" rating in the Freedom in the World report (Freedom House, 2007) and a "noticeable problems" label regarding the state of media freedoms (Reporters Without Borders, 2007). Not surprisingly, several studies and reports have indicated high levels of political apathy in Singaporeans (e.g. Chan & Wong, 2001; Veloo, 2002; Yap, 2000). However, since Singapore has universal suffrage and all citizens over 21 are required to vote by law, this apathy has not been reflected in the election turnout rates. In recent years, researchers have suggested that the Internet may play an important role in reviving and rejuvenating civic and political participation in Singapore (George & Yee, 2007; Kluver & Soon, 2004; Tan, 2003; Yeo, 2003).

Given Singapore's estimated 90 percent literacy rate for above 15-year olds (U.S. Department of State, 2007) and highly developed information infrastructure with 99% connectivity (IDA, 2007), it can be argued that its populace is in a good position to take advantage of the new forms of social connectivity. Singapore's

online public sphere is well-developed—a recent survey by Singapore’s Infocomm Development Authority (Feng, 2007) estimated 862,000 bloggers and 958,000 blog readers out of a population of less than 5 million. Still, research suggests that such high Internet penetration has not been fully utilized for democratizing public discourse in Singapore, indicating that its technologically less developed neighbor Malaysia has shown greater democratic gains from the Internet (George, 2005a).

Although optimistic expectations regarding the democratizing capacity of the Internet have been challenged (Kalathil & Boas, 2003; Kluver, 2004), it is undeniable that the Internet has helped promote political development worldwide through the reduction of costs of social and political engagement (Best & Dautrich, 2003; Kedzie, 1997). Through the Internet, individuals are able to easily learn about government policies and actions, exchange information, socialize with others, connect with community, establish shared norms, and develop networks (Bimber, 1998; Ellison, Steinfield, & Lampe, 2007; Etzioni, 1999).

This study seeks to examine whether the emerging social networks on the Internet could pave the paths for the revival of political participation both online and offline and perhaps offer a viable alternative to traditional models of social connectedness such as voluntary and civic associations, community organizations, social clubs, etc. The Internet could reverse the decline of traditional social capital by reducing the cost of organizing offline meetings and events, but could also promote completely new forms of sociability characterized by greater convenience and efficiency (Resnick, 2002). If the erosion of social capital could be faulted for the decrease in political participation as Putnam (2000) originally proposed, it is plausible that new forms of social capital that are being created online could also revitalize it.

If feasible, such mechanisms for reviving participation could be even more important in countries such as Singapore, where significant constraints on offline political expression are in existence and where traditional venues for civic participation are limited. In a society with little tradition of truly independent, grassroots civic activism (e.g. Rodan, 1998), cyberspace may provide new tools and outlets for citizens to meet, discuss public affairs and organize. As the Internet is very much incorporated into the Singaporean lifestyle (Internet World Stats, 2007; ZDNet Research, 2005), it is likely that the new forms of online sociability will increasingly also play an important role in political life. This paper thus attempts to more closely examine the relationship between online social capital and political participation in Singapore.

Literature Review

Social capital, political participation & the Internet

Scholars examining the phenomenon of declining political participation, have taken an interest in the concept of social capital (Putnam, 2000). Social capital refers to the resources accumulated through the relationships among people (Coleman, 1988). The

concept is defined by Putnam (2000) as the connections among individuals—social networks and the norms of reciprocity and trustworthiness that arise from them. In this sense social capital is closely related to what some have called “civic virtue.” The difference is that social capital calls attention to the fact that civic virtue is most powerful when embedded in a dense network of reciprocal social relations, resonating with how the Internet functions. Social capital is also closely related to political participation, although the two concepts are not synonymous. Here, Putnam argues that we must distinguish between political participation—“our relations with political institutions”—and social capital—“our relations with one another” (Putnam, 1995).

Although past research is divided on how and to what extent people should participate in politics, scholars generally deem such participation as an essential element of democracy (Teorell, 2006). Today, the importance of civic engagement to global democracy is underscored by the role of active citizenship in attenuating the powerful effects of fear in an age of terrorism and preventive war against terrorism (Barber, 2004). Yet political participation worldwide has been in decline, especially amongst the younger generations (Chan & Wong, 2001; Henn, Weinstein, & Wring, 2002; Zukin, Keeter, Andolina, Jenkins, & Carpini, 2006). The Internet has been viewed as a potential remedy for the problem of declining participation, with some scholars suggesting that the reduced cost, increased convenience, and greater availability of information will serve to promote engagement among people who are already interested and knowledgeable about politics (Bimber, 1999; Norris, 2000). Furthermore, the Internet may offer entirely new opportunities for participation for those who are disinterested and disengaged by offering alternative views, facilitating debate, and encouraging development of new types of social networks (Barber, 2001; Bimber, 1998; Polat, 2005). Studies done in the United States suggest that political importance of the Internet may be particularly accentuated for younger populations who are more likely to be drawn to political information online and who are more likely to reap knowledge and participation benefits from it (see Graber, 2001; Kwak, Poor, & Skoric, 2006; Shah, Kwak, & Holbert, 2001).

But, what is the role that the Internet plays in the creation of new forms of social capital and how can these new forms be used to facilitate political participation?

According to Resnick (2002), certain technological affordances make the Internet a particularly suitable technology for the generation of social capital. These include the provision of reputational information, vast expansion of social networks, suppression of certain sensory information that may impede cooperation (voice, smell, etc.), maintenance of records of previous interactions and names/roles which promotes collective identity and trust among group members. Indeed, studies suggest that the Internet has been vital in building social capital through the maintenance (Wellman, Boase, & Chen, 2002; Wellman, Quan-Haase, Boase, Chen, Hampton, Diaz, & Miyata, 2003) and creation of new social relationships that help communities and individuals to form and revise identity (Ho, Kluver, & Yang, 2003). For instance, e-mails can be particularly useful in increasing amount of personal communication (Horri-

& Rainie, 2002; Howard, Rainie, & Jones, 2001). Blogs serve many purposes such as enabling self-disclosure in forming online friendships (Goh & Wijaya, 2007), providing an outlet for political activists to air opinions (Ho & Poon, 2006), as well as shaping and constraining the larger political debate by socially constructing an agenda or interpretive frame that acts as a focal point for mainstream media (Drezner & Farrell, 2004). Most recently, studies show that the relationships that are flourishing on social networking sites such as *Facebook.com* may contribute to the creation of social capital (Ellison, Steinfield, & Lampe, 2006; Ellison, Steinfield, & Lampe, 2007).

With regards to the relationship between social capital and political participation, a study by Lake and Huckfeldt (1998) suggests that politically relevant social capital is generated in personal networks as a by-product of the social interactions with other discussants, and that the increasing levels of social capital enhance the likelihood that a citizen will be engaged in politics. Likewise, Zhang and Chia (2006) found that people's social connectedness enhanced both civic and political participation. In addition, Klesner's study (2004) also supports the argument that social capital is an important factor in encouraging the higher levels of political participation that we generally associate with a richer, holistic democratic experience.

However, it has been suggested that these new channels of communication can produce negative social capital as well. Some social networks have been used to mobilize extremists and help terrorists fund and conduct their activities (see Helliwell & Putnam, 2004). In an organizational setting, technologies like instant messaging can lead to higher connectivity and new forms of collaboration, but at the expense of creating greater social distance because employees use the mediated environment as a shield to distance themselves from superiors (Quan-Haase, Cothrel, & Wellman, 2005). Furthermore, while Internet use generally predicted greater social benefits for those with more social support, the benefits accrued largely depended on the extent to which they could leverage online opportunities to enhance their daily lives, making it worse off for those with less social support (Kraut, Kiesler, Boneva, Cummings, Helgeson, & Crawford, 2001).

Bridging and bonding capital, online and offline

According to Putnam (2000), although social capital is certainly a multidimensional construct, the most important distinction between different types of social capital can be made on the basis of the inclusivity/exclusivity dimension. Some forms of social capital are mainly exclusive and are associated with closely knit homogenous groups, bonded by kinship, ethnic, religious or ideological ties. Other forms are more inclusive as they bridge across gender, race, ethnicity, geography, etc., and provide better access to outside assets and information. While bonding social capital provides necessarily social and psychological support and sense of belonging, bridging social capital is characterized by weaker, but more widely diffused networks of reciprocity.

It can be argued that the bridging versus bonding framework presents a useful means for understanding online social capital too. On the Internet, bridging capital offers more knowledge on public issues through networking (Cross, Parker, & Sasson, 2003). For instance, bridging social capital could emerge as a product of participation in forums and commentary on blogs. Such spaces are frequently utilized for discussion and re-education of citizens regarding participation in public affairs (Klein, 1999). Participants in these activities are usually strangers from diverse backgrounds that come together because of the forum or blog's topic/issue. Consequently, such textual communication via the Internet strips away the standard visual and aural cues of social identity—e.g. gender, race, age, and socioeconomic status—and helps to promote heterogeneity (Norris, 2002).

On the other hand, bonding in the online world occurs when people interact online with the members of their family, neighborhood, ethnic group, church, or a political organization that they support, and creates strong in-group sense of loyalty, which may also lead to some sort of out-group antagonism (see Putnam, 2000). Rheingold (1994) points to this basic human need for community that may be expressed over the Web as informal physical spaces disappear. The result of participating in closely knit online communities could be expected to reinforce like-minded beliefs and similar interests and therefore promote ideological homogeneity among members (Norris, 2002; Sunstein, 2001).

So, how do our bridging and bonding relationships on the Internet relate to our relationships offline? In other words, what is the “Net” gain (or loss), when it comes to bridging and bonding social capital?

In examining relationships on and off the Internet, Cummings, Butler, and Kraut (2002) found that online relationships are less valuable than offline ones, and their net benefit depends on whether they supplement or substitute for offline social relationships. Boase and Wellman (2006) theory of networked individualism describes the transition from traditional spatially proximate and densely knit communities to which people belong to more spatially dispersed and sparsely knit personal networks in which people maneuver online. Kavanaugh, Carroll, Rosson, Zin, and Reese (2005) on the other hand, found that Internet use can strengthen social contact, community engagement, and attachment.

Drawing from the works of Coleman (1988) and Putnam (2000), Williams (2006) used the concept of social capital to establish a theoretical model and examine the movement of social capital, from online to offline, or vice versa. According to Williams (2006), previous research has primarily focused on offline bonding and whether Internet use will supplement or supplant real-world relationships. He argues that such studies only consider one quarter of the social capital outcomes, ignoring the possible positive effects of the Internet on pre-existing weak relationships. The lack of differentiation between online and offline relationships then makes it difficult to account for the net gain or loss of either online or offline social capital. Hence, in order to find the net results of Internet use, Williams (2006) developed the Internet

Social Capital Scales as a measurement tool to study the relationship between bridging and bonding social capital both in online and offline contexts.

In his most recent study, Williams (2007) suggests that while the Internet may indeed displace offline social capital it can also help create completely new forms of social capital in cyberspace. More specifically, the findings indicate that although the Internet may not be an ideal environment for developing strong, bonding ties, it has a potential to promote weaker, cross-cutting ties that characterize bridging social capital.

Online social capital & political participation in Singapore

Singapore has been quite unique in achieving high social development with low civic engagement (Levine, 2006). Studies examining political participation in Singapore found it to be low, indicating that Singaporeans are indifferent about politics (e.g. Chan & Wong, 2001; Rodan, 1998). Leong (2000) found that a majority of Singaporeans who disagreed with the government policies preferred to remain silent rather than to speak up in public. Kalathil and Boas (2003) said that Singapore merits special consideration for its government's achievement of what many believed to be impossible: extensive ICT development with a negligible erosion of political control.

Still, this situation seems to be changing. More recently, Kwek (2006) found that Singaporean voters in the 2006 General Elections considered an efficient and fair government more important than bread-and-butter issues. This apparent shift in voters' priorities became a talking point as it suggested that despite previous findings, political interest and activism in Singapore could be growing. Some recent events support this notion—a public outcry regarding the unexpected closure of a new train station led to a protest, demonstrating that Singaporeans could increasingly be taking interest in public affairs (George, 2005b). Likewise in April 2005, political filmmaker Martyn See was under criminal investigation for his documentary *Singapore Rebel*, on the grounds that it breached the Films Act (Reporters Without Borders, 2006). His case led to an online petition carrying 434 signatures in support of his work and anonymous Internet users posted the snippets of the documentary on a video-sharing website Youtube.

The most recent example demonstrates a clear spillover effect of online mobilization to the world of traditional politics. A group of activists organized an online petition for the repeal of gay sex ban, statute 377a, which is ongoing a review in the Penal Code Amendment (Ng, 2007). Repeal377a organizers used the Internet to gather support from the masses, with a vodcast featuring local celebrities, a petition site, and the power of links and blogs to get the word out to others (Ng, 2007). As described on their website, the few thousand who have pledged their support would have their names and signatures carried in an open letter to the Prime Minister, establishing a direct link between online and traditional participation. Similarly, the group calling to keep the ban on gay sex had a similar approach with an online petition and an open letter, leading to a rather healthy debate of this issue both online and offline (Ng, 2007).

In sum, it is hard to ignore the increasing relevance of the online sphere when looking at political participation in Singapore. Although traditional political participation is hampered by stringent government controls, harnessing the potential of the Internet to foster an active civil society could circumvent such restrictions. Hence, the aim of this study is to more closely examine the relationship between online social capital and online as well as traditional political participation.

Our main research questions and hypotheses were derived from the literature that was reviewed above:

H1: Internet users are more likely to engage in traditional political participation than nonusers.

H2: Internet users who possess a higher amount of bridging online social capital are more likely to engage in online political participation.

H2b: Internet users who possess a higher amount of bridging online social capital are more likely to engage in traditional political participation.

H3: Internet users who possess a higher amount of bonding online social capital are more likely to engage in online political participation.

H3b: Internet users who possess a higher amount of bonding online social capital are more likely to engage in traditional political participation.

Method

Design and sample

The data for this study was gathered via a random digit dialing (RDD) telephone survey of 550 Singaporean adults. Trained interviewers conducted this nationwide survey in the period of July 9, 2007 to July 14, 2007. Using the American Association for Public Opinion Research (2006) formula RR_3 , a moderately stringent method of response rate calculation, we arrived at a response rate of an estimated 45 percent.

After data cleaning, a final sample of 522 completes was compared with the Singapore 2007 Midyear Estimates (Singapore Department of Statistics, 2007), and was found to reasonably approximate the population in terms of gender, age, and monthly household income, although people aged 60 and above were underrepresented. This could be attributed to the language problem experienced by most of the Chinese elderly, who can only comprehend certain Chinese dialects. In the final sample, 46.4 percent of respondent were male and 70.1 percent of respondents were classified as Internet users.

Procedure

A computer-assisted telephone interview (CATI) system utilizing a random digit dialing procedure was used in this study. Except for ineligible and unqualified

numbers (such as disconnected or business), each telephone number was attempted at least eight times. Only Singapore citizens aged 18 and above, were qualified to participate in the survey. The youngest male/oldest female technique was used to randomly select the respondent within each household. The interviews were conducted in three of the four official languages in Singapore: English, Mandarin Chinese, and Malay. Tamil, the fourth official language, was excluded because most Indian citizens are able to communicate in English. An average interview lasted about 20 minutes.

Measures

Online social capital

Online social capital measures were based on the Internet Social Capital Scales devised by Williams (2006). These measures included five items on bridging capital and six items on bonding capital. Bonding-related items consisted of: there is someone online I can turn to for advice about making very important decisions; the people I interact with online would share their last dollar with me; the people I interact with online would put their reputation on the line for me; I do not know people online well enough to get them to do anything important; the people I interact with online would help me fight an injustice; and, there are several people online I trust to help solve my problems. Bridging-related items consisted of: interacting with people online makes me feel connected to the bigger picture; interacting with people online makes me interested in what people unlike me are thinking; I am willing to spend time to support general online community activities; interacting with people online makes me want to try new things; and, interacting with people online makes me feel like part of a larger community. Both bridging and bonding indices utilized a 6-point Likert scale ranging from 1 = strongly disagree to 6 = strongly agree. Cronbach's α s for the bonding scale and bridging scale were 0.77 and 0.76, respectively.

Traditional political participation potential

The lack of a politically active citizenry in Singapore creates difficulties in assessing the level of political participation. Hence, the following scale adapted from Yeo (2003) measures Singaporeans' likelihood of participating in political activities, rather than directly asking them about the type of activities undertaken within the past year. In turn, these activities were originally derived from Milbrath's (1965) work of political participation. For this index, respondents indicate their likelihood to participate in 6-point Likert scales (1 = very unlikely, 2 = unlikely, 3 = somewhat unlikely, 4 = somewhat likely, 5 = likely, and 6 = very likely).

The eight items include: how likely you are to expose yourself to political information in Singapore; initiate a discussion with your family and friends on public issues in Singapore; contact a Member of Parliament or political official in Singapore; contribute money to a party or political candidate in Singapore; attend an election rally in Singapore; speak publicly about public issues in Singapore; contribute time and effort in a political campaign in Singapore; become an active member in a

political party in Singapore. Reliability analysis for this scale yielded a Cronbach's α of 0.82.

Online political participation

In addition to the offline political participation measures, four items were used to assess the degree of online political participation. These items include: I have read or posted comments on online discussion groups related to politics or public affairs in Singapore; I have read online newspapers on topics related to politics or public affairs in Singapore; I have read online blogs commenting on politics or public affairs in Singapore; and, I have e-mailed others on topics related to politics or public affairs in Singapore. For this index, respondents indicate their frequency in taking part in these online activities using a 5-point rating (1 = Occasionally, 2 = Sometimes, 3 = Frequently, 4 = Very Frequently, 5 = All the time). Reliability analysis showed that the items could be combined into a reliable scale with a Cronbach's α of 0.76.

Control variables

Three media attention questions were used to assess how much attention the participants paid to political and public affairs news on television, on the Internet and in newspapers. The respondents indicated their level of attention on a 5-point Likert-type scale (1 = Very Little to 5 = Quite a Lot).

Finally, a set of standard demographic questions was asked. These measures included age, gender, education, race, and income level.

Results

Demographics, Internet use and traditional participation

Using the screening question of "Do you use the Internet," out of the 522 respondents, 366 were identified as Internet users, and 156 participants were classified as nonusers. Differences in demographics and traditional political participation between those who were Internet users and those who were not are examined below.

An independent samples *t*-test revealed that Internet users were significantly younger ($M = 33.13$, $SD = 11.84$) when compared to nonusers ($M = 52.35$, $SD = 13.49$; $t(262.30) = -15.42$, $p < 0.01$; see Table 1). Also, a *t*-test showed a significant difference between the education levels of respondents who were Internet users ($M = 5.79$, $SD = 1.33$) and those who were not ($M = 3.39$, $SD = 1.61$; $t(247.63) = 16.36$, $p < 0.01$), such that respondents who were Internet users possessed higher educational levels than non-users.

Furthermore, Internet users had significantly higher income levels ($M = 5.42$, $SD = 2.11$) than nonusers ($M = 3.42$, $SD = 2.01$; $t(433) = 8.98$, $p < 0.01$). No differences were found between those who used the Internet and those who did not with regards to how much they used television and newspapers to follow political and public affairs-related topics. Lastly, as hypothesized in H1, Internet users

Table 1 Differences between Internet Users and Nonusers: Demographics, Media Use & Traditional Political Participation

	Internet users			Non-Internet users			<i>t</i>
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	
Age	33.13	11.84	363	52.35	13.49	156	-15.42*
Education Level ^a	5.79	1.33	365	3.39	1.61	155	16.36*
Income Level ^b	5.42	2.11	314	3.42	2.01	121	9.18*
Television Use	10.51	7.69	366	10.21	9.37	156	0.35
Newspaper Use	12.78	8.60	366	11.10	9.91	156	1.84
Traditional Political Participation	2.86	0.89	366	2.62	1.06	156	2.65*

Note. The higher the mean value, the greater the attribution. ^a1=Less than \$1,000, 8 = \$7,000 and above. ^b1 = No formal education, 7 = Degree and above. **p* < 0.01.

Table 2 Hierarchical Regression Predicting Traditional Political Participation from Demographic, Media Use, and Internet Use Variables

	Traditional Political Participation
Demographics	β
Age	-.079
Education	.073
Income	-.064
R²	.014
Media Use	
Newspaper Attention	.316**
Television Attention	.037
R² change	.104**
Internet Use	
User/Non-user	-.022
R² change	.00
Total R² adj. (%)	10.6
F	9.566**
<i>df</i>	6
N	433

p* < 0.05. *p* < 0.01.

had significantly higher traditional participatory potential ($M = 2.86$, $SD = 0.89$) as compared to non-Internet users ($M = 2.62$, $SD = 1.06$; $t(266.35) = 2.65$, $p < 0.01$). However, further analyses demonstrated that once appropriate controls for demographics and media attention were applied, Internet use was not a significant predictor of traditional political participation (see Table 2). Interestingly, while none of the demographic variables were significant, attention paid to political and public affairs issues in the newspapers had a significant positive relationship with political participation, accounting for approximately 10% of the variance.

Online social capital & political participation potential

The analyses below included only 366 respondents who were Internet users, as we assessed the relationship between online social capital and political participation potential. Table 3 presents means and standard deviations for all predictor and criterion variables in the study. Table 4 presents Pearson’s correlation coefficients for the above variables and three demographic variables.

It was found that online political participation positively correlated with traditional political participation potential, $r(365) = 0.43, p < 0.01$, such that respondents who were more inclined to participate in politics online, were also more inclined to participate in traditional politics. Online bridging capital positively correlated with both traditional and online political participation potential, $r(347) = 0.27, p < 0.01$ and $r(346) = 0.38, p < 0.01$, respectively. Similarly, online bonding social capital was also found to be correlated with traditional, $r(349) = 0.30, p < 0.01$, as well as with online political participation, $r(348) = 0.29, p < 0.01$.

Hierarchical regression analyses predicting online and traditional political participation potential with online social capital measures as the predictors were incorporated into Table 5, which included the controls for demographics and media attention variables.

The results indicated that online bridging capital was significantly related to online political participation index (H2), but that online bonding capital was not (H3). The β coefficient between online bridging capital index and online political participation index was 0.236, $p < 0.01$. Furthermore, both online news

Table 3 Means and Standards Deviations for Predictor and Criterion Variables

	<i>M</i>	<i>SD</i>	<i>n</i>
1. Online Bridging Capital	18.86	4.99	347
2. Online Bonding Capital	17.21	5.75	349
3. Online Political Participation	1.83	.87	365
4. Offline Political Participation	2.86	.89	366

Table 4 Correlations Between Predictor, Criterion, and Demographic Variables

Variables	1	2	3	4	5	6	7
1. Online Bridging Capital	-						
2. Online Bonding Capital	.58**	-					
3. Online Political Participation	.38**	.29**	-				
4. Traditional Political Participation	.27**	.30**	.43**	-			
5. Age	-.33**	-.26**	-.18**	-.13*	-		
6. Education	.02	-.04	.07	.15**	-.39**	-	
7. Income	-.09	-.17**	.07	.04	-.02	.51**	-

** $p < .01$, * $p < .05$

Table 5 Hierarchical Regressions Predictions Online and Traditional Political Participation From Demographic, Media Attention, and Social Capital Variables

	Online Political Participation	Traditional Political Participation
Demographics	β	β
Age	-.063	.072
Gender	-.005	-.057
Education	-.031	.075
Race	.040	.038
Income	.092	-.055
R²	.040*	.017
Media Attention		
Online News Attention	.233**	.024
Newspaper Attention	.034	.205**
Television Attention	.079	.037
R² change	.154**	.117**
Political Participation		
Traditional Political Participation	.254**	
Online Political Participation		.281**
R² change	.095**	.102**
Online Social Capital		
Online Bridging Capital	.236**	.068
Online Bonding Capital	.050	.180**
R² change	.057**	.041**
Total R² adj. (%)	31.9	24.5
F	13.738**	9.945**
df	11	11
N	296	296

* $p < 0.05$. ** $p < 0.01$. Table shows controls for age, gender, education, race, income, online news attention, newspapers attention, television attention, and online/traditional political participation.

attention ($\beta = 0.233$, $p < 0.01$) and traditional political participation ($\beta = 0.254$, $p < 0.01$) were significantly related to online participation. The model accounted for 31.9% of variance, with the online social capital block explaining 5.7 percent and political participation and media attention blocks accounting for 9.5% and 15.4% of variance, respectively. Demographic block was also significant explaining 4 percent of variance, although none of the individual demographic variables reached significance.

In contrast, the findings for traditional participation indicate that online bonding capital was significantly related to traditional political participation (H3b), while online bridging capital was not (H2b).

The β coefficient for online bonding capital index was 0.180, $p < 0.01$; furthermore, the measures of newspaper attention and online participation were also significantly related to traditional participation, $\beta = 0.205$, $p < 0.01$ and $\beta = 0.281$, $p < 0.01$, respectively.

The model for traditional political participation explained 24.5% of variance; the online social capital block explained 4.1 percent while political participation and media attention blocks accounted for 10.2% and 11.7%, respectively.

Discussion

In our study, Internet users were found to have greater traditional participatory potential than non-Internet users. The Internet users generally came from higher socioeconomic backgrounds and thus might have more resources, time, knowledge, as well as a greater need for political affiliation. However, the analysis also showed that basic demographic factors were not related to traditional political participation among the general population of Singapore. Moreover, when media attention variables were controlled for, Internet use had no relationship with traditional participation potential; only newspaper attention was found to have a moderately strong relationship with traditional participation, reaffirming an important role of print media in this process.

The findings for our sample of Internet users indicate that online bridging capital was positively associated with online political participation but not with traditional political participation. The pattern of findings was reversed for online bonding capital. Furthermore, our results show that social ties formed online remain to be important even after the measures of media attention are controlled for, suggesting a unique variance in political participation not explained by the informational aspects of media use. Still, it is evident that attention paid to political and public affairs stories on the Internet is one of the main factors associated with increased political participation online. It can be argued that the greater availability and diversity of political information online may act as a catalyst for citizens who are already interested in politics (e.g. Bimber, 1999; Norris, 2000). However, the results suggest that this potential gain in participation is limited to the online sphere, as no relationship was found between attention paid to online news and traditional political participation. Indeed, only attention paid to newspaper stories on politics and public affairs had a positive relationship traditional participation, with the Internet and television attention playing no role.

So, how can we explain the relationship between online bridging capital and online participation?

First, the benefits of the Internet include the ease of connecting with others, with acts of participation online requiring very little effort. The convenience provided by the Internet makes online political participation easier and therefore increases the likelihood of this occurring when one is encouraged. Furthermore, the diversity of opinions available online enables the citizens to see new perspectives and test the reliability of traditional media sources. Given that the traditional media outlets in Singapore often do not represent the range of political views that differ from that of the ruling party, this may be an important factor promoting greater and more thoughtful political engagement online. The empowerment may stem from new

technological affordances that enable fast and convenient interactions with much larger and potentially more geographically dispersed social networks (Resnick, 2002). This has the potential to draw like-minded people to form an online community and mobilize around the issues that concern them.

While our findings support the link between online bridging ties and online participation, there is no evidence that these bridging ties play a role in traditional political participation. The absence of the relationship between online bridging capital and traditional political participation could be attributed to the lack of trust in online bridging relationships, supporting the 'pseudocommunity' view posed by Beniger (1987). This is also in sync with Cummings et al.'s (2002) view of online relationships as being less valuable than real-world ones, with their net benefit depending on whether they supplement or substitute for real-world social relationships. Thus, while online bridging capital could encourage online political participation, the lack of trust in these interactions probably prevents any positive impact on traditional political participation.

Moreover, given the existing restrictions on traditional political activities in Singapore, it is perhaps not surprising that the "loose" ties created on the Internet cannot be readily used for political action in real life. This is in line with Kuo, Choi, Arun, Soh, & Lee (2002) findings suggesting that while a significant number of Singaporeans view the Internet as a viable platform for learning about politics they do not assume that it necessarily results in real empowerment.

Interestingly, the findings suggest that only online bonding capital was positively associated with traditional political participation. We argue that the Internet serves an important role in the maintenance and strengthening of pre-existing close bonding ties (see Ellison et al., 2007) and that this explains the association between online bonding capital and traditional participation. The densely knit social networks of close friends, family members, religious or ethnic organizations may be given an additional boost on the Internet via the ease, speed and convenience of online interactions, resulting in enhanced group self-awareness and increased sense of group identity (Resnick, 2002). This increased feeling of togetherness may help mobilize politically inactive citizens and serve as a shield against political apathy. Furthermore, strong online bonding ties may alleviate the fears associated with attending political rallies, speaking publicly about politics or joining political parties, which certainly represent barriers to traditional political participation in Singapore.

Conclusion

Our findings show evidence that online social capital is related to political participation in and beyond cyberspace. However, the lack of offline social capital measures in our study does not allow us to conclude that these relationships can be solely attributed to online social capital. Offline social capital may have preceded online social capital and thus it is possible the relationships we found actually stem from the pre-existing real-world social ties, bridging and bonding alike. However, we

argue that this scenario is unlikely, partly because in our analyses of the predictors of online participation we controlled for traditional participation which should be closely related to offline social capital (similarly, we controlled for online participation when analyzing the predictor of traditional political participation).

The pattern of our findings indicates two distinct roles of online social capital in promoting political participation in societies where significant restrictions on political expression are in force. First, online bridging social ties may serve to organize and mobilize citizens in cyberspace where the above restrictions on political expression are either not as strong or are simply more difficult to enforce by the governments. This creates new spaces for political expression and participation where the cost of participation is significantly lower than in real life. Second, online bonding ties may play a more direct role in rejuvenating traditional participation mainly by maintaining and strengthening strong ties that already exist in the real world. In both cases, the Internet and its affordances bring a new quality to political life through the creation of new forms of sociability.

References

- American Association of Public Opinion Research. (2006). *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys*. Retrieved August 2, 2007, from <http://www.aapor.org/responseratesanoverview>.
- Barber, B. R. (2001). The uncertainty of digital politics: Democracy's uneasy relationship with information technology. *Harvard International Review*, *23*(1), 42–48.
- Barber, B. R. (2004). *Strong democracy: Participatory politics for a new age*. University of California Press: Berkeley.
- Beniger, J. (1987). Personalization of mass media and the growth of pseudo-community. *Communication Research*, *14*(3), 352–371.
- Best, S. J. & Dautrich, K. (2003). *Reinvigorating democracy: Generating social capital and political participation on the Internet*. Paper presented at the annual meeting of the American Association for Public Opinion Research, Sheraton Music City, Nashville, TN. Retrieved August 21, 2007, from http://www.allacademic.com/meta/p116209_index.html.
- Bimber, B. (1998). The Internet and political transformation: Populism, community, and accelerated pluralism. *Polity*, *31*(1), 133–160.
- Bimber, B. (1999). The Internet and citizen communication with government: Does the medium matter? *Political Communication*, *16*(4), 409–428.
- Boase, J. & Wellman, B. (2006). Personal relationships: On and off the Internet. In A. Vangelisti & D. Perlman (Eds.) *Cambridge Handbook of Personal Relationships* (pp. 709–723). Cambridge: Cambridge University Press.
- Chan, B. W., & Wong, T. Z. (2001). *Surveying Singaporeans' political attitudes, participation, and knowledge*. Unpublished final year project, Nanyang Technological University, Singapore.
- Coleman, J. C. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, *94*, 95–120.

- Cross, R., Parker, A., & Sasson, L. (2003). *Networks in the knowledge economy*. Oxford University Press.
- Cummings, J. N., Butler, B., & Kraut, R. (2002). The quality of online social relationships. *Communications of the ACM*, *45*(7), 103–108.
- Drezner, D. W., & Farrell, H. (2004, July). *The power and politics of blogs*. Paper presented at the 2004 American Political Science Association Conference. Retrieved August 2, 2007, from <http://www.utsc.utoronto.ca/~farrell/blogpaperfinal.pdf>.
- Economic Development Board. (2007). *Singapore rankings*. Retrieved August 2, 2007, from http://www.sedb.com/edb/sg/en_uk/index/why_singapore/singapore_rankings.html.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2006, June). *Spatially bounded online social networks and social capital: The role of Facebook*. Paper presented at the Annual Conference of the International Communication Association (ICA), Dresden, Germany. Retrieved August 2, 2007, from http://www.msu.edu/~nellison/Facebook_ICA_2006.pdf.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook “friends:” Social capital and college students’ use of online social network sites. *Journal of Computer-Mediated Communication*, *12*(4). Available at <http://jcmc.indiana.edu/vol12/issue4/ellison.html>.
- Etzioni, A. (1999). Face-to-face and computer-mediated communities, a comparative analysis. *Information Society*, *15*(4), 241–249.
- Feng, Z. K. (2007, July 17). More netizens open up to blog. *The Straits Times, Digital Life*, p. 10.
- Freedom House. (2007). *Charts and Graphs*. Retrieved Oct 3, 2007, from <http://www.freedomhouse.org/template.cfm?page=362>.
- George, C. (2003). The Internet and the narrow tailoring dilemma for “Asian” democracies. *Communication Review*, *6*(3), 247–68.
- George, C. (2005a). The Internet’s political impact and the penetration/participation paradox in Malaysia and Singapore. *Media, Culture & Society*, *27*(6), 903–920.
- George, C. (2005b). *Calibrated coercion and the maintenance of hegemony in Singapore*. Asia Research Institute. Retrieved August 2, 2006, from http://www.ari.nus.edu.sg/docs/wps/wps05_048.pdf.
- George, C., & Yee, Y. C. (2007). *Calibrated coercion in Singapore: A history of Singapore’s management of Internet content*. Retrieved August 26, 2007, from <http://calibratedcoercion.wordpress.com/case-files/>.
- Goh, H., & Wijaya, M. (2007). *Blogging and online friendships: The role of self-disclosure and perceived reciprocity*. Unpublished final year project, Nanyang Technological University, Singapore.
- Graber, D. A. (2001). Adapting political news to the needs of twenty-first century Americans. In W. L. Bennett & R. Entman (Eds.), *Mediated Politics: Communication in the future of democracy*. Cambridge, MA: Cambridge University Press.
- Helliwell, J. F., & Putnam, R. D. (2004). The social context of well-being. *Philosophical Transactions of The Royal Society B: Biological Sciences*, *359*, 1435–1446.

- Henn, M., Weinstein, M., & Wring, D. (2002). A generation apart? Youth and political participation in Britain. *British Journal of Politics and International Relations*, 4(2), 167–192.
- Ho, K. C., Kluver, R., & Yang, C. C. (2003). *Asia.com: Asia encounters the Internet*. London: Routledge.
- Ho, T. E. B., & Poon, M. R. (2006). *The Singapore blog space: Politics, laws and self-censorship*. Unpublished final year project, Nanyang Technological University, Singapore.
- Horrigan, J. B., & Rainie, L. (2002). *Getting serious online*. Pew Internet Report. Retrieved August 2, 2007, from http://www.pewinternet.org/PPF/r/55/report_display.asp.
- Howard, P., Rainie, L., & Jones, S. (2001). Days and nights on the Internet: The impact of a diffusing technology. *American Behavioral Scientist*, 45(3), 382–404. Retrieved August 2, 2007, from http://www.pewinternet.org/PPF/r/5/article_display.asp.
- IDA (Infocomm Development Authority of Singapore) (2007). *IDA's Annual Surveys on Infocomm Usage in Households and by Individuals*. Retrieved November 6, 2007 from <http://www.ida.gov.sg/Publications/20070822125451.aspx#usageHse1>.
- Internet World Stats. (2007). *Internet usage statistics: Number of Singapore Internet users*. Retrieved August 21, 2007, from <http://www.internetworldstats.com/asia.htm#sg>.
- Kalathil, S., & Boas, T. C. (2003). *Open networks, closed regimes*. Carnegie Endowment for International Peace, Washington D.C.
- Kavanaugh, A., Carroll, J. M., Rosson, M. B., Zin, T. T., & Reese, D. D. (2005). Community networks: Where offline communities meet online. *Journal of Computer-Mediated Communication*, 10(4). Retrieved August 26, 2007, from <http://jcmc.indiana.edu/vol10/issue4/kavanaugh.html>.
- Kedzie, C. (1997). *Communication and democracy: Coincident revolutions and the emergent dictators*. Dissertation, RAND Graduate School, Santa Monica, CA. Retrieved August 6, 2007, from http://www.rand.org/pubs/rgs_dissertations/RGSD127/.
- Klein, H. K. (1999). Tocqueville in cyberspace: Using the Internet for citizen associations. *Information Society*, 15, 213–20.
- Klesner, J. L. (2004). *Social capital and political participation in Latin America*. Paper prepared for delivery at the XXV International Congress of the Latin American Studies Association, Las Vegas. Retrieved August 2, 2007, from http://www2.kenyon.edu/Depts/PSci/Fac/klesner/Klesner_Social_Capital_lasa_2004.pdf.
- Kluver, R. (2004). Political culture and information technology in the 2001 Singapore General Election. *Political Communication*, 21, 435–458.
- Kluver, R., & Soon, C. (2004). *The Internet and online political communities in Singapore*. Paper presented at the annual meeting of the International Communication Association, Sheraton New York, New York City. Retrieved August 21, 2007, from http://www.allacademic.com/meta/p13014_index.html.
- Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2001). Internet paradox revisited. *Journal of Social Issues*, 58, 49–74. Retrieved August 2, 2006, from <http://www.webuse.umd.edu/webshop/resources/kraut.pdf>.
- Kuo, E., Choi, A., Arun, M., Soh, C. & Lee, W. P. (2002). *Internet in Singapore: A study on usage and impact*. Singapore: Times Academic Press.

- Kwak, N., Poor, N., & Skoric, M. (2006). Honey, I shrunk the world! The relationship between Internet use and international engagement. *Mass Communication and Society*, *9*(2), 189–213.
- Kwek, K. (2006, June 16). ‘That IPS survey’: Team stands by findings. *The Straits Times*. Retrieved August 2, 2006, from http://www.ips.org.sg/Media/yr2006/postelection/ST_That%20IPS%20survey%20Team%20stands%20by%20findings_160606.pdf.
- Lake, R. L. D., & Huckfeldt, R. (1998). Social capital, social networks, and political participation. *Political Psychology*, *19*(3), 567–583.
- Leong, W. K. (2000, August 15). The silent majority. *The Straits Times*. Retrieved August 2, 2007, from LexisNexis database.
- Levine, P. (2006). *Political participation and economic success*. Retrieved August 18, 2006, from <http://www.peterlevine.ws/mt/archives/000865.html>.
- Milbrath, L. W. (1965). *Political participation*. Chicago: Rand McNally.
- Ng, A. (2007, October 19). Keep377a.com vs Repeal377a.com. *TODAYonline*. Retrieved October 20, 2007, from <http://www.todayonline.com/articles/217510.asp>.
- Norris, P. (2000). *Digital divide: Civic engagement, information poverty, and the Internet worldwide*. Cambridge: Cambridge University Press.
- Norris, P. (2002). The bridging and bonding role of online communities. *Harvard International Journal of Press/Politics*, *7*(3), 3–13. Retrieved August 26, 2007, from <http://ksghome.harvard.edu/~pnorris.shorenstein.ksg/ACROBAT/Bridging.pdf>.
- Polat, R. K. (2005). The Internet and political participation: Exploring the explanatory links. *European Journal of Communication*, *20*(4), 435–459.
- Putnam, R. D. (1995). Tuning in, tuning out: The strange disappearance of social capital in America. *PS: Political Science and Politics*, *28*(4), 664–683.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.
- Quan-Haase, A., Cothrel, J., & Wellman, B. (2005). Instant messaging for collaboration: A case study of a high-tech firm. *Journal of Computer-Mediated Communication*, *10*(4). Retrieved August 26, 2007, from <http://jcmc.indiana.edu/vol10/issue4/quan-haase.html>.
- Reporters Without Borders (2006). *Singapore - Annual report 2006*. Retrieved August 2, 2007, from http://www.rsf.org/article.php3?id_article=17360.
- Reporters Without Borders (2007). *Singapore—Annual report 2007*. Retrieved Oct 3, 2007, from http://www.rsf.org/country-50.php3?id_mot=265&Valider=OK.
- Resnick, P. (2002). Beyond bowling together: SocioTechnical capital. In J. M. Carroll (Ed.), *HCI in the New Millenium* (pp. 247–272). Addison-Wesley.
- Rheingold, H. (1994). *The virtual community*. London: Minerva.
- Rodan, G. (1998). The Internet and political control in Singapore. *Political Science Quarterly*, *113*(1), 63–89.
- Shah, D. V., Kwak, N., & Holbert, R. L. (2001). “Connecting” and “disconnecting” with civic life: Patterns of Internet use and the production of social capital. *Political Communication*, *18*, 141–162.
- Singapore Department of Statistics. (2007). *Singapore in figures: 2007*. Retrieved August 21, 2007, from <http://www.singstat.gov.sg/stats/keyind.html#popnarea>.

- Sunstein, C. R. (2001). *Republic.com*. Princeton: Princeton University Press.
- Tan, W. Y. (2003). *The Internet and its impact on political communications in Singapore*. Unpublished master's dissertation, Nanyang Technological University, Singapore.
- Teorell, J. (2006). Political participation and three theories of democracy: A research inventory and agenda. *European Journal of Political Research*, *45*, 787–810.
- U.S. Department of State, Bureau of East Asian and Pacific Affairs. (2007, April). *Background note: Singapore*. Retrieved August 26, 2007, from <http://www.state.gov/r/pa/ei/bgn/2798.htm>.
- Veloo, R. (2002). 'Speechless in Singapore'. Singaporeans for Democracy. Retrieved August 21, 2007, from [http://www.sfdonline.org/Link percent20Pages/Link percent20Folders /02 Pf/weekend_today070902.html](http://www.sfdonline.org/Link%20percent20Pages/Link%20percent20Folders/02%20Pf/weekend_today070902.html).
- Wellman, B., Boase, J., & Chen, W. (2002). The networked nature of community: Online and offline. *IT & Society*, *1*(1), 151–165. Retrieved August 2, 2006, from <http://www.princeton.edu/~dimaggio/Internet%20and%20community/wellman%20et%20al%20IT%20&%20Society%20summer%202002%20Internet%20srengthens%20community.pdf>.
- Wellman, B., Quan-Haase, A., Boase, J., Chen, W., Hampton, K., Díaz, I., & Miyata, K. (2003). The social affordances of the Internet for networked individualism. *Journal of Computer-Mediated Communication*, *8*(3). Available at <http://jcmc.indiana.edu/vol8/issue3/wellman.html>.
- Williams, D. (2006). On and off the 'net: Scales for social capital in an online era. *Journal of Computer-Mediated Communication*, *11*(2). Available at <http://jcmc.indiana.edu/vol11/issue2/williams.html>.
- Williams, D. (2007). The Impact of Time Online: Social Capital and Cyberbalkanization. *CyberPsychology and Behavior*, *10*(30), 398–406.
- Yap, C. W. (2000, December 20). Youths shun politics, involvement. *The Straits Times*. Retrieved August 2, 2007, from LexisNexis database.
- Yeo, B. (2003). *Internet, participation, and protest potentials*. Unpublished master's dissertation. Nanyang Technological University, Singapore.
- ZDNet Research. (2005, March 9). *Top countries by IT usage: Singapore, Iceland, Finland*. Retrieved August 21, 2007 from <http://blogs.zdnet.com/ITFacts/?p=7276>.
- 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.
- Zukin, C., Keeter, S., Andolina, M., Jenkins, K., & Carpini, M. X. D. (2006). *A new engagement? Political participation, civic life, and the changing American citizen*. New York: Oxford University Press.

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