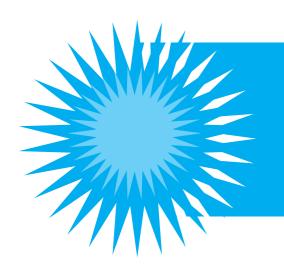


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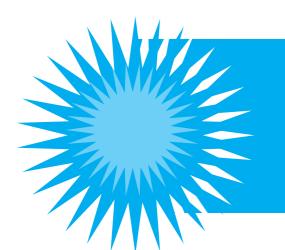


Abstract

n recent years, there has been heightened public and political attention on civic engagement, political participation, and a sense of belonging to Singapore, which appears to stress more active elements, and empowerment amongst young people. Given that Singaporean youths are among the fastest in the world to adopt the Internet, this study empirically examined the associations between social participation in both online and offline contexts among Singaporean youths. This report summarises several findings from data analyses conducted on respondents of a web-based survey and a subset of youths who completed in-depth interviews. Findings showed a positive relationship between online connectivity and civic participation. Youths who have visited civic related websites and those who have created their own websites were more likely to volunteer for a non-profit cause. In line with other studies conducted overseas, results showed that Singaporean youths who reported to be more religious and hold positive civic attitudes towards public affairs were more likely to engage civically. Findings from the interviews illustrated the ways in which the Internet is utilised by youths to support their civic engagement at home and abroad.







Introduction

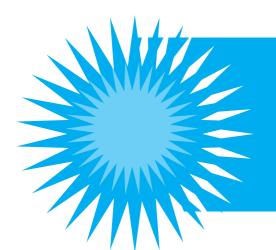
In recent years, there appears to be heightened public and political attention on civic engagement, political participation, and a sense of belonging to Singapore. Specifically, the insertion of 'youth' into the newly expanded Ministry of Community Development, Youth and Sports, the government under the leadership of the newly appointed Prime Minister Lee, signalled a greater emphasis to be placed on youths, especially those of the post-1965 group (Lee, 2004). Alongside the general emphasis on youth development, various concerns have also been raised with regard to motivating today's youths to contribute to society (Chew, 04/09/04) and cultivating both 'roots' and 'wings' for young Singaporeans and overseas Singaporeans in the era of intensified globalisation (Lee, 25/08/04).

In tandem, new meanings of citizenship have emerged which purportedly stress more active connections and empowerment amongst young people. In particular, Robert Putnam's research in Europe and America, and his proposition that social capital built through encouraging voluntary associations and promoting civic engagement has been influential in Singapore and other parts of the world. Social capital encompasses norms and networks; the values and resources that both result in, and are the product of, socially negotiated ties and relationships (Edwards, 2003; Edwards, 2004). Social capital may be applied as a useful conceptual tool to examine the vitality of the Singaporean society and to the youth community in Singapore. Although the term social capital has not been historically popular in official policy discourse in Singapore, the dominant conception of social capital and links to notions of good citizenship is evident in key government initiatives and programmes for the past decade (Tan, 2003). For example, the National Youth Council in Singapore recently developed a National Youth Indicators Framework to understand and monitor youth development in Singapore. This framework is based on the paradigm of "youths as resources" and is anchored in "human" and "social capital" (Ho & Yip, 2004). Accordingly, the Council is focusing on the power of social relationships, including the three measures of social support, participation, as well as values and attitudes. Although the concept of social capital has been critiqued (Morrow, 1999; Portes, 1998; Deth, 2003), several commentators have argued that thinking in terms of social capital allows researchers and policy makers to evaluate a number of dimensions, such as public and private community, and civic engagement (Schueller, Baron & Field, 2000).

As part of the result of these interests, a range of policy initiatives and actions have been framed by the perceived need to encourage civic engagement among youths and create the conditions for belonging feelings and behaviours to Singapore. In 2004, the newly appointed Prime Minister, Lee Hsien Loong in his maiden rally speech, welcomed a greater role of civil society, particularly pressing for youth civic engagement. There appears to be a move toward more synergetic governance in Singapore through active partnerships and shared responsibilities between state and society as "an active citizenry will help us to build a national consensus, engender a sense of rootedness, and enable the Government to serve the people better" (Lee, 2004). Younger Singaporeans were urged to take the initiative to volunteer and participate directly in the nation building process.

In light of the popularity of the Internet among youths, this report summarises several research findings on how Singaporean youths utilise various interpersonal and mediated communicative resources for civic and social purposes. Given that the goal of this journal by the National Youth Council is to reach a lay person audience and practitioners in youth development work, this paper briefly summarises the results of an empirical exploration of the associations between social contact and social participation in both online and offline contexts in an abridged report. As such, this paper briefly presents the communicative aspects of social capital and its implications for cultivating belonging feelings (sense of Singapore as home) and behaviours (commitment to civic responsibilities).





Literature Review



The Internet and Civic Participation: Online and Offline Dynamics

ast communication research has highlighted how the Internet may act as an enabling technology, allowing for civic engagement in multiple ways when Internet users participate in a variety of online activities (Bimber, 2000). There are several ways in which the Internet may work to influence social capital, each with differing implications for civic engagement. The Internet may increase, decrease, or supplement existing forms of network capital (interaction with others), participatory capital (activity in civic and political groups), and community capital (sense of belonging) (Wellman, Quan-Hasse, Witte & Hampton, 2001). More specific, it is posited that the Internet may a) transform social capital by leading social contact and civic involvement away from local organisations; b) diminish social capital by drawing people away from local community and politics; and c) supplement social capital when people utilise the Internet to maintain existing contacts and sustain their political interests online (Quan-Hasse & Wellman, 2004). For example, existing social networks may utilise the information distribution aspect of online networks to facilitate communication (Wellman, Carrington & Hall, 1988) via virtual communities for communication and community building (Rheingold; 2000). The Internet may also be utilised for grassroots organizing and advocacy to prompt civic engagement (Naughton, 2001). Prior studies have identified multiple applications of information technology in the non-profit sector for supporting volunteers, (Culkier & Middleton, 2003), improving organisational effectiveness (Pollak & Lampkin, 2001), and enhancing service provision (Creaturo, 2001). Furthermore, recent research on Internet use among religious organisations have shown how the Internet is appropriated by religious communities in a myriad of ways, as leaders and believers in some cases actively adopt the Internet and (re)structure their social capital and communicative norms (Cheong & Poon, in press; Kluver & Cheong, 2007).

To date, several studies in Western contexts have shown positive relationships between online media use and offline community involvement. For instance, a study on seven ethnic communities in Los Angeles found that residents who report a higher level of belonging to physical communities and had larger social interpersonal networks were also more likely to be active Internet users, who use the Internet to maintain old social bonds and create new ones online (Matei & Ball-Rokeach, 2001). In another study, findings from the investigation of Netville located on the outskirts of Toronto, Canada, suggest that online networks supported both strong and weak social ties. Residents connected to the Internet have a broader range of social contacts than non-wired residents (Hampton & Wellman, 2000). Results from an international online survey of about 40,000 Internet users show that Internet activity supplements interactions with others, increases activity level to civic and political groups and is associated with a sense of community with kin groups and the general online community (Wellman et al, 2003).

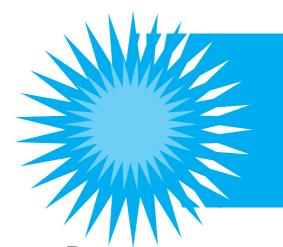




A study involving an overtime assessment of the development of Camfield Estates, a predominantly African-American housing development in Boston, showed that participants who had the Internet introduced to their homes reported they had expanded their local ties, and had a heightened awareness of community resources. Residents commented that Internet adoption had inspired them to stay informed about local, national and international matters, and they has used the Internet to gather information to address their basic needs and keep informed of their community development (Pinkett & O'Bryant, 2002). A case study of a computer community network called Blacksburg Electronic village in Virginia, showed that the longer people have been connected to the Internet, the more likely they are to use online networks for social capital building activities. However, contrary to popular expectations, increased Internet access did not directly lead to an increase of social capital in terms of participation in social groups. The authors highlighted that it is important to examine the communication patterns underlying the voluntary associations online and offline to determine if network users are forming new voluntary associations online or are using the Internet as an efficient way of extending traditional associations to new audiences (Kavanaugh & Patterson, 2001).

This study seeks to examine the associations between social contact and social participation in both online and offline contexts among Singaporean youths. In line with the local political culture, it appears that the Internet has been incorporated in a pivotal manner to support recent efforts to invigorate participatory politics and civic engagement among youths. Given the promise that electronic networks may help to bring people together, in some ways, it may be expected that addressing social capital building online will help Singaporean youths to regain a sense of national belonging and boost the low volunteerism rate among Singaporeans. To date, multiple government agencies and youth organisations in Singapore have utilised the Internet to build and facilitate various forms of bonding and bridging social capital (Lim & Cheong, 2005). Various national programmes have concentrated on constructing online spaces to promote active citizenship via information provision, online feedback, and participation. For example, an online government consultation portal was set up to allow registered members to share their views on national issues and provide feedback on government policies (www.app.feedback.gov.sg). There have also been attempts to reach youths through consultation exercises, engaging young Singaporeans in cyberspace via webchats and electronic forums (Loo & Soh, 01/09/04). Moreover, the Feedback Unit pioneered an effort to revamp its existing website and create a youth community website by enlisting the collaborative assistance of Singaporean youths (Ng, 06/02/05).

Given that Singaporean youths are among the fastest in the world to adopt the Internet (e.g., Cheong, in press; Jung, Kim, Lin, & Cheong, 2005; Kuo, Choi, Mahizhnan, Lee, & Soh, 2002) in a nation striving to become a digital island (Tan, 1998), how do Singaporean youths utilise the Internet in their everyday lives to build social capital? What are the relationships between online and offline connections for civic participation? In addition, given that a large proportion of Singaporeans are religious, with more than four-fifths of the Singaporean adult population report having an religious affiliation Buddhism, Taoism, Christianity, Islam, Hinduism, and traditional Chinese religions (Singapore Department of Statistics, 2000), what are the implications of religiosity for social capital building among young adults?



Methodology

ata for this paper is collected as part of a larger research project on community engagement and media use among youths in Singapore, supported by the National Youth Council of Singapore. The study employed a multi-method approach in the research design. In the first phase of data collection, web-based questionnaires were administered. This was followed by a series of face-to-face interviews with a smaller subset of youths. In line with the interests of the National Youth Council, data collection targeted youths who were aged 15 to 30 and were current students in local institutions of higher education (including universities, polytechnics, and institutes of technical education). The data collection process proceeded between July to September of 2005. For the online survey, cooperation was sought from various lecturers to email invitations to their students to solicit their participation in a short (about 15-20 minutes to administer) web-based questionnaire, asking for information such as their overall media usage, community engagement behaviours, and social relationships. Youths were directed to the survey questionnaire hosted at the National Youth Council website. In compliance with research regulations, respondents were made to read an instruction page explaining the non-profit and academic nature of the study and had to click a box verifying that they understood the instructions and were eligible to participate. Respondents were offered an opportunity to receive a movie ticket as an incentive to participate in the survey. In all, 767 responses were collected. Surveys were complemented by more in-depth interviews with a smaller subset of youths who were randomly selected from the survey population to participate in a follow-up interview. Semi-structured interviews were constructed to provide more in-depth information on civic participation and Internet use from the youths' point of view. Researchers arranged the interviews at the site of the interviewees' convenience. The interview sessions typically lasted an hour and 38 youths were interviewed.



Analysis

In this report, data from both the quantitative survey and qualitative interviews were triangulated to allow comparison of information sources and the verification of the validity of information received. All statistical analyses were performed using SPSS 12.0 and employed a .05 level of significance. Descriptive statistics (frequency counts, means, standard deviations) and Pearson product-moment correlations were used to explore study factors. Statistical analyses were tested using hierarchical analyses where sets of variables were entered as variables in different blocks to control for their intercorrelations and to better identify the unique variance explained by each block of variables. The interviews were transcribed in full for close textual analyses as well as the use of verbatim quotations for reporting the research. Following the constant comparative method, each transcript was read several times in order to form a systematic analysis and identify overall themes. For the purposes of this paper, qualitative quotes were used to supplement quantitative survey data analysis to elucidate youth civic participation motivations and behaviours.

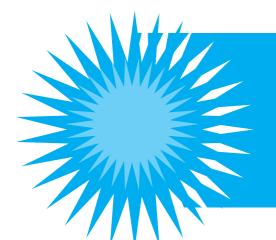






Characteristics of the Sample

Of the total 767 respondents who were Internet users, 470 (61%) were male and 297 (39%) were female. Respondents ranged in age from 18 to 30 with a median age of 21. 15% received less than a high school education, 45% attained a high school education and 20% attained at least a college degree. Respondents' household income ranged from less than \$1,000 to more than \$7,000 per month, with a median household income in the range of \$2,001 to \$3,000 per month, similar to the median household income reported in the most recent census 2000.



Results: Quantitative



Youths and Patterns of Internet Use

Internet use was measured by two forms of online behaviours; interactive and creative uses of the Internet. Interactive use of the Internet was a composite variable created by a summation of ten online activities adapted from a prior report on youth civic participation and Internet use (Livingstone, Bober & Helsper, 2004). Responses were derived from the question, "Here are some of things people do on websites. Do you ever do any of these things? Online activities include: do a quiz; send an email or SMS to a site; vote, send pictures or stories to a site; contribute to a message board; offer advice to others; fill in a form; sign a petition; seek for information; seek for advice". Creative use of the Internet was measured by asking the respondents, "Have you ever created a website by yourself?"

Results showed that most youths have engaged in multiple kinds of interactive activities online. More than 90% of the youths report to have sought information and done a quiz online. 89% have filled in a form, 78% have sent an email or SMS and 74% have voted online. About two thirds have sought advice online and contributed to a message board. More than one half reported to have offered advice to others, and have send pictures to a site. The least popular interactive activity was to sign a petition online (40%). With regard to the creative use of the Internet, about 49% of the youths have created a website by themselves.

Besides their activities on websites, youths were also asked if they have ever visited websites about charity, environment, government, religion, human rights, and improving conditions at school/work. About 87% of the youths report to have visited websites about government, followed by charity (71%), and the environment (70%). About 55% of the youths have visited websites on religion and websites about improving conditions of their school or work. The least popular website visited website was human rights, visited by 43% of the youths.





Youth Civic Participation

Civic participation was measured by time spent by youths volunteering for a non-profit cause and their participation in any club or association that are concerned with charity or non-profit community activities. About 49% of the youths participated in clubs or associations for a non-profit cause. Of those who were participants, 117 attended meetings more than once a month, 66 about once a month and 133 reported to have participated in the meetings or activities "only very occasionally." On the average, youths surveyed spent 1.7 hours per week working for a non-profit cause.



Online and Offline Relationships of Civic Interest and Participation

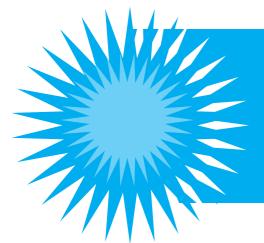
A logistic regression model was created to examine the factors affecting youth civic participation and to locate the unique variance contribution of online activities to civic participation. Statistical analyses were tested using hierarchical analyses where sets of variables were entered as variables in different blocks to control for their intercorrelations and to better identify the unique variance explained by each block of variables. Block one contained the demographic variables age, gender, income, and education. Respondents were asked of their age on their last birthday. Education was measured by a single item, "highest level of education attained." The scale ranged from 1 to 6, with response categories ranging from "GCE 'N' level" to "Masters' degree." Income was measured by the response to the question, "What is your total gross family income for each month?" Eight response categories were given, ranging from "\$1,000 or less" to "above \$7,000." Male gender was coded as "1", and female was coded "0". Block two contained the Internet use variables (interactive and creative use as discussed earlier) and the online civic scope by aggregating the types of civic websites visited by youths, including charity, environment, government, religion, human rights and improving conditions at school/work. Block three contained the religiosity variable, which is an aggregate to responses to six statements regarding respondents' frequency of religious activities including, "attend religious services", "other activities at a place of worship", "pray privately in places other than at church, temple or mosque", "read religious literature", "prayers or grace before or after your meals", "watch or listen to religious programmes." Block four contained the civic attitude variables. Youths were asked to respond to two statements about civic participation on a five point Likert scale from strongly disagree to strongly agree: "It is no use worrying about current events or public affairs; I can't do anything about them anyway", "Every person should give some of his/her time for the good of his/her country."

Among the sample of youth Internet users, the final logistic regression model predicting whether or not youths participated in civic community activities was statistically significant, and explained 12% of the variance. Results from the first block of demographic variables showed that age, education, income and gender did not significantly predict civic participation, indicating that youth demographics per se is not associated with civic participation. In other words, youth civic engagement occurs across age, gender, income, and educational groups. Internet use was found to be significantly associated with civic participation, after controlling for demographic variables. A higher proportion of those who have visited websites regarding government, charity, environment, religion, human rights, and improving conditions at school/work, and those who have created their own websites were more likely to engage in civic participation.

In the third block concerning the religiosity variable, results showed that those who self reported to be more religious (exhibiting both internal and external religious traits) were also more likely to be have participated in associations or volunteered for a non-profit cause. Finally, youths' civic attitudes also significantly predicted civic participation, above and beyond the demographic, Internet use and religiosity factors.







Results: Qualitative



Youth Civic Motivations and Engagements

During the in-depth interviews with current student volunteers, respondents were asked to describe their initiation into civic participation, the nature of their involvement with their volunteer work and the specific roles that they played in the organisations. Most respondents said that their interest and involvement in volunteer works stemmed from their junior college and ITE days. The majority of respondents said that they developed awareness of the programmes via interpersonal sources, mostly from friends in their peer and classmate networks in schools. For example, responses include:

"I learnt about the organisation through a friend whose friend was volunteering at XXX. What happened was I had just left another youth organisation because I felt that its workings and operations clashed with, with my own principles and beliefs and I couldn't really agree with the way things were handled. So I was looking for another organisation to volunteer with and my friend said, 'Hey, why not try XXX Network?', and so she mentioned me to R., the chairman of XXX and he called me and asked me to go down and that's how I began."

"From my friend. She was volunteering there and she asked if I was interested. And I was. So on one of her tuition sessions, I just pop by to take part."

In line with results from the survey, several interviewees explained that they were motivated by their religious beliefs and were volunteering as part of being members of their religious organisations. Their responses included:

"From my church...one of my pastors got contacts with the school and they needed help to run this programme, cause they had quite a few kids who were having quite a lot of problems like skipping school and pornography and all that, so they asked my pastor to go there and help and she asked me along."

"Because XXX Social Centre is actually set up by my church, XXX Evangelical Church, they needed volunteers to help out for this programme and I volunteered."

The interview data also supported the strong roles that traditional institutions including schools and churches/temples played in the dissemination of volunteering information and the coordination of civic activities. One respondent said:

"The idea of Com. Service (community service) came through the school CIP programme. And then for the organisations themselves, I contacted NCSS (National Council of Social Services) and asked for an organisation, I said I wanted kids, so they gave me Children's Society, so that's what I started off with."



In light of the current enthusiasm about web-based programmes, it is interesting to note that some youths have taken the initiative to independently seek out civil participation opportunities via mediated connections, especially information seeking from the Internet. For example, one respondent said:

> "Actually I was searching for some volunteering programmes to take part in and I was surfing the internet and from the National Council of Social Service website I came across this volunteer work activity so I just called the organisation and went down to see what they can offer."

These findings illustrate the potential and efficacy of deploying newer media like the Internet to reach out to youths connected to the Internet with information about civic engagement. However, it must be noted that new media does not exist tabula rasa, but functions with other media (including face to face communication) in an ecology of media choices to promote civic work. For example, with regard to the interrelated relationships between online and offline civic engagement, most youths found the Internet an efficient way to coordinate and manage their volunteering activities with their counterparts, they said;

> "I think in terms of announcements, because XXX is so distributed in different institutions so its very difficult for the headquarters, the Red Cross headquarters in Singapore to tell us upcoming events, things like that, so we do base our training schedules on what the website says. It's a way how HQ can communicate better with us."

> "I guess it helps to provide us with a lot of useful information. I mean, if the Internet wouldn't around, we'll have to like, run to embassies to get very vital information. Or do a lot of calling up, or things like that? Oh! Because a lot of youths today use the MSN Messenger. So even from home, we can use the Internet to chat with each other to discuss our projects."

> "It makes it easier for us to keep in contact with the rest of the other student volunteers, you know, if someone were to send an email then we can receive it almost right away, and it is easier to organise things if you are online than to call each other on the phone."

Some of the respondents have used the Internet to recruit long-term volunteers and short term helpers for their projects:

> "When we organise an event right, we will be asked to send emails to attract more volunteers. Normally for sending about 10 emails we may get 5 people volunteering and on the actual day maybe 1 or 2 people come. It depends on the people. It's a normal process."

For some however, the Internet's role was basic and limited to the role of an online directory and listing of peoples in the organisation. For example, some youths commented:

> "Basically, it (the Internet) just helps me in terms of contacting my volunteers, through emails and MSN. Information services."

> "For the kind of things that I'm doing, the website does not really matter to me, because ours is very hands-on...we'll just email each other. We meet up with each other more."

"It only just provide us with (laughs a little) addresses and telephone numbers."





For several youths interviewed, the Internet is used more frequently and intensively for their intra-organisational communication:

"I think in particular reference to youth volunteers who are technology savvy, who are good with IT, who are able to relate well to technology, I think, Internet is a very important means of communication, especially for information. We often hold discussions online and there are online forums and we can communicate through email, so in actual fact I think that the Internet has facilitated our communication and it does allow us to keep in touch easily."

"I think...it(Internet) helps a lot really, especially I remember when I was planning for the camp, the executive committee members were all from different backgrounds and our time schedules clashed so the Internet was our basic means of communication and we used the Internet and MSN groups and stuff to maintain contact and to give suggestions and stuff."

In addition, a few respondents said that the Internet enabled them to gain a macro perspective of the civic participation scene in Singapore and understand the activities of other organisations so as to better plan their own activities. For example, one respondent said,

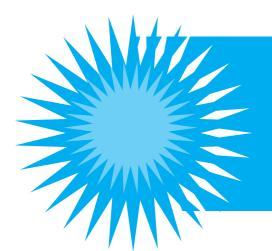
"It complements in a way that we actually are more aware of what is going on in other clubs, with that we can actually exchange notes among ourselves and perhaps learn from each other and improve on our services and activities, so as to bring better services towards the community that we are serving."

Beyond volunteering within national borders, youths in Singapore have been exhorted to be 'active global citizens'. Some youth volunteers shared how the Internet had been instrumental in helping them extend their work and influence beyond national borders. In particular, two youths explained how important the Internet was for their overseas missions:

"I would say it's [the Internet] very very crucial for us. Because we are doing overseas humanitarian trips, so overseas we are only able to communicate for the first time, through email. It's only through email, and then slowly we get like, contacts, phone numbers, and then we'll start calling them directly, start planning. So I would say it's quite indispensable."

"In terms of humanitarian trips, the Internet is good in the sense that you can use the Net to help you find out information, background of the country, statistics, maybe even the.. let's say the cause is regarding AIDS... actually there's a project regarding AIDS prevention, aids awareness and prevention in Bangladesh, so then.. the people in charge use the Internet to search for statistics regarding AIDS awareness, regarding use of condoms or whatever, regarding... and how much government has done... all these things, I think mostly through the Internet."





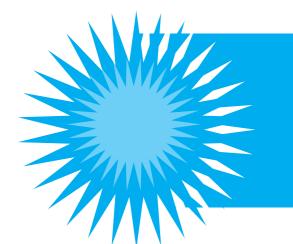
Conclusion

n sum, this report summarised several key findings concerning the empirical exploration of the relationships between online and offline civic engagement and religiosity among youths in Singapore. Contrary to earlier concerns about the Internet promoting alienating and even anti-social behaviours, results here suggest a positive relationship exists between youths' online connectivity and their offline civic participation. Results also point to how social-psychological factors including pro-civic attitudes as well as religiosity may serve as significant motivations towards civic engagement in the Singaporean context. Interview data further illustrates the multiple ways in which the Internet has been incorporated into youths' everyday and civic lives, including the social and administrative aspects of their civic work, in local as well as international contexts.

Finally, it is acknowledged that several limitations to this study exist. Part of the data from this study is obtained from a web-based survey with a non-probability based sample of youth Internet users that may be unrepresentative of the youth population in Singapore. Coverage is a concern for web-based surveys, although Couper (2000) noted that there are some communities like college campuses where connectivity is almost universal, thereby mitigating the sampling bias of web-surveys. As noted earlier, the Internet penetration rate among Singaporean youths is very high, making online surveys a low cost and efficient way of data collection. Moreover, given the exploratory nature of this study, a mix of quantitative and qualitative approaches was employed to gain a textured and detailed understanding of Internet use and problem solving behaviours from youths' point of view. In light of the dearth of information on youth Internet use and their problem solving behaviours in Singapore, generalizability is not sought with this sample. Rather, it is hoped that results of this study highlight trends in the online connectivity and motivations of Singaporean youth civic engagement. Future research should attempt to increase the validity of the study by including a wider range of other attitudinal or motivational variables as antecedents for youth civic participation. With increased resources, future research could also go beyond a single-shot cross-sectional snapshot of youth Internet use, to over-time observations on the relationships among the study factors. Given the belief in youth empowerment and the current mandate towards proactive social capital building at home and abroad in other international contexts, it would be interesting to engage in comparative youth research studies across countries to examine the unique cultural and religious dynamics underlying youth civic participation.







References

Bimber, B. (2000). The study of Information Technology and Civic Engagement. *Political Communication*, 17, 329-333.

Chew, S.K. (2004) Forum ponders how to fire up the young. The Straits Times, 04/09/04.

Cheong, P.H. (in press) The Young and Techless? Internet use and Problem Solving Behaviors among Young Adults in Singapore. *New Media and Society.*

Cheong, P.H. & Poon, J.P (in press). 'www.faith.org': (Re)structuring communication and social capital building among Religious Organizations. *Information, Communication and Society.*

Creaturo, S. M. (2001). *The Digital Workforce: How Technology Is Transforming Nonprofit Job Training Programs, The Impact of Information Technology on Civil Society,* Independent Sector Spring Research Forum. Washington, DC.

Couper, M. P. (2000). Web Surveys a Review of Issues and Approaches, *Public Opinion Quarterly*, 64, 4(Winter), 464-481.

Culkier & Middleton (2003) Evaluating the Web Presence of Voluntary Sector Organizations: An Assessment of Canadian Web Sites. *IT & Society, 3(1),* p. 102-130

Deth, J. W. (2003) Measuring social capital: orthodoxies and continuing controversies. *International Journal of Social Research Methodology, 6 (1)* 79-92

Edwards, R. (2003). Introduction: themed section on social capital, families and welfare policy. *Social Policy & Society*, 2 (4), 305-308.

Edwards, R. (2004). Social capital. Organizational Management Journal, 1 (1), 81-88.

Ibrahim, Z.(2004) Let us shape our future together. The Straits Times, Singapore. 08/13/04.

Ho, K.C. & Yip, J. (2004) Youth.sg: The State of Youth in Singapore. National Youth Council, Singapore.

Jung, J.Y., Kim, Y.C., Lin, W.-Y., & Cheong, P. H. (2005). The influence of social environment on Internet connectedness of adolescents in Seoul, Singapore and Taipei. *New Media & Society, 7(1)*, 64-88.

Kavanaugh, A. & Patterson, S. (2002). The Impact of Computer Networks on Social Capital and Community Involvement in Blacksburg. In B. Wellman & C. Haythornthwaite (Eds.), *The Internet in everyday life* (pp. 325-344). Oxford, UK: Blackwells.

Kluver, R. & Cheong, P.H. (2007). Technological Modernization, The Internet, and Religion in Singapore. *Journal of Computer- Mediated Communication*, 12 (3), article 18. http://jcmc.indiana.edu/vol12/issue3/kluver.html

Kuo, E.C.Y., Choi, A., Mahizhnan, A., Lee, W.P. and Soh, C. (2002) *Internet in Singapore. A Study on Usage and Impact.* Singapore: Times Academy Press.



Lee, C. W. (2004) An open society? We'll see. Young Singaporeans skeptical about promised changes. *Today*, 25/08/04.

Lee, H.L. (2004) Prime Minister, Speech presented at The National Day Rally 2004, held at the University Cultural Center, NUS, on August 22, 2004. Retrieved on November 10, 2004 from http://app.sprinter.gov.sg/data/pr/2004083101.htm

Lim, K. & Cheong, P.H. (2005) *The Internet & Social Capital: Exploring the Web presence of Youth Organizations for Civic Engagement.* Paper presented at the Singapore Youth & Media Conference, Ngee Ann Polytechnic, January 26th, 2005.

Livingstone, S. & Bober, M. (2004). UK Children go online. Surveying the experiences of young people and their parents. Retrieved on May 5, 2005 from: http://personal.lse.ac.uk/bober/UKCGOsurveyreport.pdf

Loo, D. & Soh, W.L. (2004) Webchat at breakneck pace with overseas Singaporeans. *The Straits Times*, 01/09/04.

Matei, S., & Ball-Rokeach, S. J. (2001). Real and virtual social ties: Connections in the everyday lives of seven ethnic neighborhoods. *American Behavioral Scientist*, 45(3), 550-564.

Morrow, V. (1999). Conceptualising social capital in relation to the well-being of children and young people: a critical review. *The Sociological Review*, 47(4), 744-765.

Naughton, J. (2001). Contested Space: The Internet and Global Civil Society, Global Civil Society. London: London School of Economics.

Ng, S. (2005). Feedback to the Government: Don't be an answering machine. *The Straits Times*, Singapore. (06/02/05)

Pinkett, R. & O'Bryant, R. (2002) Building Community, Empowerment, and Self Sufficiency: Early Results from the Camfield Estates- MIT creating community connections project. Retrieved (03/05/03) from: http://xenia.media.mit.edu/~rpinkett/papers/dc2002.pdf

Pollak, T. & Lampkin, L. (2001). How Technology Is Changing the Role of Nonprofit Umbrella Associations. The Impact of Information Technology on Civil Society, Independent Sector Spring Research Forum. Washington, DC.

Portes, A (1998). Social capital: its origins and applications in modern sociology. *Annual Reviews of Sociology* 24:1-24.

Putnam, R. (2000). Bowling alone: The collapse and revival of American community. New York: Simon & Schuster.

Quan-Haase, A. & Wellman, B. (2004). How does the Internet Affect Social Capital. *In Social Capital and Information Technology.* M. Huysman and V.Wulf, (Eds.). Social Capital and Information Technology. (pp.113-132). USA, Massachusetts: MIT Press.

Rheingold, H. (2000). *The Virtual Community: Homesteading on the Electronic Frontier* (2nd. Edition). Cambridge, Massachusetts: MIT Press

Rheingold, H. (1993) "A Slice of Life in My Virtual Community," in *Global Networks: Computers and International Communication*. Cambridge, MA: MIT Press, p. 64.

Schueller, T., Baron, S. & Field, J. (2000). Social Capital: a review and critique, in Schueller, T., Field, J. & Baron, S. (eds). *Social Capital: Critical Perspectives.* (p. 1-38). Oxford: Oxford University Press.

Singapore Department of Statistics. (2000). Religion. *Census of Population 2000. Statistical Data Release 2: Education, Language, and Religion.* Retrieved April 3, 2006 from http://www.singstat.gov.sg/pdtsvc/pubn/cop2000r2.html



Tan, M. (1998) Plugging into the wired world. Perspective from Singapore. *Information Communication and Society 1(4)* 217-245, Francis and Taylor Ltd, Uk.

Tan, T.K. (2003). *Social Capital and Singapore Society.* Retrieved on October 10, 2004 from http://www.spp.nus.edu.sg/docs/wp/wp51.pdf.

Wellman, B., Carrington, P., & Hall, A. (1988). Networks as personal communities. In B. Wellman & S. D. Berkowitz (Eds.), *Social structures: A network approach* (pp. 130-184). Cambridge: Cambridge University Press

Wellman, B., Quan-Haase, A., Witte, J., & Hampton, K. (2001). Does the Internet increase, decrease, or supplement social capital? Social networks, participation, and community commitment. *American Behavioral Scientist*, 45, 463-455.

