

Information Needs and Seeking Behaviour of Voters during Singapore General Election 2015

Shaheen Majid, Schubert Foo, Hannah Trinity Dumauual and Venkata Ratnadeep Suri

*Nanyang Technological University
Singapore*

Abstract

Purpose: The purpose of this study was to understand information needs and different communication channels used by voters for seeking election-related news and information. It also explored voters' perceptions of the credibility, timeliness, and bias of various information communication channels.

Methodology: A questionnaire was used to collect data and 115 individuals who voted in the Singapore general election 2015 participated in the study.

Findings: It was found that the majority of the voters were interested in information about candidates in their constituencies, their speeches and interviews. Only around one-half of the voters were interested in the manifestos of political parties, and analyses made by political commentators. The top four channels for seeking election-related news and information were: news websites, television, Facebook, and print newspapers. Common social media platforms, such as blogs, Twitter, and YouTube were not heavily used. The mainstream media was considered more credible than social media platforms.

Implications/Value: The findings of this study will be useful to political parties in developing their future election communication strategies. Political commentators, information and communication researchers, and media experts are also likely to benefit from this study by understanding information needs and seeking behaviour of voters.

Originality: Most of the previous studies have only focused on source preference by voters. In addition to this, the present study also investigated specific election-related information needs and the sources used by voters to satisfy these information needs.

Keywords: Information Needs; Information Seeking; Social Media; Newspapers; Television; Information Credibility; General Elections; Singapore

Introduction

General election is a process of empowering public to provide their reaction to the manifestos of different political parties, their past achievements, and decide who should run the next democratically elected government. It also provides a reflection of public assessment of the performance of previous government. In recent years, general elections in many countries are becoming more information-intense and political parties use all possible communication

platforms to reach out to their potential voters (Majid et al, 2012). Information dissemination could be at different levels with focus on distinct messages targeting specific voter segments by using appropriate communication channels. At national level, political parties typically disseminate information about their manifestos, highlight their past achievements, and project their future policies, plans, and strategies. At state or city level, the emphasis may be more on local development plans, new projects, and proposed improvements in public amenities such as infrastructure development, healthcare, public housing, education, transportation, and other public facilities. At constituency level, individual candidates may focus more on their individual profiles and eligibility, public service record, understanding of local problems and their possible solutions, plans for neighbourhood improvement, and their strategy to seek public feedback and stay connected with residents.

Elections have always been information-rich events and voters may use a variety of information outlets to seek election-related information. Information source preference is usually influenced by voters' demographics, media attributes, and the level of political involvement (Kaye & Johnson, 2002). However, rapid ICT developments have introduced a new dimension to the dissemination of election-related news and information (Enli, 2017; Larsson & Ihlen, 2015). Previously political parties, in addition to political rallies, election marches, neighbourhood gatherings and advertisements, were mostly using traditional media such as newspapers, radio and television to spread their message to masses (Majid et al., 2012). The popularity, flexibility, and easy access to the Internet have significantly changed the way political parties now run their election campaigns (Cameron, Barrett, & Stewardson, 2016; Miller & Ko, 2015). Most of the political parties, even in developing countries, are now convinced that effective use of social media can make a difference in attracting and engaging voters, particularly young voters (Bing, 2015; Graham et al., 2016; Hsin-Chen, 2017).

Singapore is one of the world's most connected societies, with 88% of households having Internet access (Infocomm Development Authority of Singapore, 2016). This is unsurprising as Internet and social media has become an integral part of citizens' daily life. During the Singapore general election 2015 campaign, it was expected that online media would play a key role in disseminating political information and to connect with potential voters. The main purpose of this study was to investigate information behavior of voters in seeking election-related news and information during the Singapore general election 2015. The findings of this study will be useful to political parties in designing their future election campaigns as well as to media houses in considering appropriate strategies for disseminating political and election news to their audiences.

Literature Review

During elections political parties and their candidates use all possible communication channels to reach out to their potential voters. They use multiple platforms for creating awareness among voters about their past achievement and future programs. These parties may also use media to rebuke claims of opponent political parties, criticize their manifestos, and point out weaknesses and shortcomings of their candidates. However, with the advancements in ICT and access to a variety of communication outlets, political parties are now more conscious of the fact that a carefully developed media strategy is necessary to effectively influence the public opinion. Karlsen (2010) categorized election campaigns into three broad categories: pre-modern campaigns (newspaper phase), modern campaigns (television phase) and post-modern campaigns (digital phase) with extensive use of computer-generated content.

Some recent studies suggest that the Internet, particularly blogs, YouTube, Twitter, and Facebook, play a crucial role in reaching out to potential voters (Enli, 2017; Gibson &

McAllister, 2011; Nulty et al., 2016; Wattal et al., 2010). Kavanaugh et al. (2016) noted that online media plays a crucial role during elections in authoritarian regimes where government usually controls the traditional media. They reported that during the 2012 Mexican elections, online sources were considered the most reliable for seeking political information while state-controlled television and newspapers as the least reliable. Zhang (2016) also reported that opposition parties in Singapore heavily used social media for election campaigning because they considered it the only alternative available to them. Sani (2014) felt that social media is trendy, cheap and easy to access, especially by youth in Malaysia who makes up one-half of the voters. He noted that online channels such as Facebook, Twitter, YouTube, news portals and blogs are heavily used by all major political parties for election campaigning. Garrett and Danziger (2011) reported that those individuals who voted in the 2008 USA presidential election tended to use the Internet more frequently for seeking political information compared to those who did not vote. Another study found that a fair proportion (37%) of those who were actively engaged in online political activities felt that the Internet helped them feel more personally connected to their candidates of choice (Smith, 2009). Similarly during the 2013 general elections in Kenya, social media played a crucial role in shaping the political landscape (Bing, 2015). A study conducted by Cameron, Barrett, & Stewardson (2016) in New Zealand showed a relationship between the size of online social activity, election voting and election results.

Twitter has become an important tool for political parties and their candidates to actively disseminate latest information to their followers. Enli (2017) reported that in the 2016 US presidential election Twitter became a popular platform for mass communication and the main online information dissemination channel. Larsson (2015) assessed the use of Twitter and Facebook during the 2014 election in Sweden. He claimed that potential of these platforms allowed political actors to move from broadcasting (one-way communication) to interactive (two-way communication) to engage and interact with their potential supporters. Graham et al. (2016) compared the use of Twitter by UK and Dutch parliamentary candidates during the 2010 general elections. They found that Dutch politicians were more likely to use Twitter and, on average, they tweeted twice more than their British counterparts. It was also reported that Dutch candidates utilized the interactive potential of Twitter more frequently and the public response was positive. Caldarelli et al. (2014) analyzed the behavior of Italian Twitter users during national elections and found that the volume of tweets and their timing provide a very good proxy of the final results. A similar study in India by Ahmed et al. (2016) analyzed 98,363 tweets posted by eleven political parties during 2014 Indian general elections. It was found that the new-and-upcoming parties used Twitter for self-promotion and media validation, while established parties used it to supplement their offline strategies. They also reported that the winning parties' electoral success was significantly associated with their use of Twitter for engaging voters, and the level of internet accessibility. Himelboim et al. (2013) also felt that channels providing two-way communication (such as Twitter) were more popular compared to those supporting only a one-way information flow (e.g. print newspapers, television, and radio).

In addition to Twitter, certain other web platforms such as Facebook, blogs, and YouTube have also been successfully used for political and election campaigning. Hanson et al. (2011) argued that the video sharing websites YouTube is now a mandatory campaign tool among candidates. Reilly (2011) reported that part of the 61.4% turnout of votes during 2011 federal elections in Canada were from the youth voters who had used YouTube during the election campaign. Perez-Pena (2008) noted that YouTube has a multiplier effect, which can turn an under-financed candidate into a serious contender. Carlson (2008) also agreed that YouTube gave a voice to certain minor electoral players and ordinary citizens in the elections. However, he pointed out that YouTube played a marginal role in the Finish national election 2007 as only 6% of the

candidates posted their videos on YouTube. Winneg et al. (2010) found a positive relation between watching political videos on YouTube and political knowledge of voters. Political blogs are also successfully used by political parties and candidates in many countries including Norway (Segaard & Nielsen, 2013), Malaysia (Sani, 2014), and the USA (Wattal et al, 2010). Similarly, Facebook was also used in several countries for reaching out to voters. For example, a study by Barclay et al. (2015) found a strong positive correlation between the number of 'likes' received by a party or its leader and their popular vote share. They also claimed that the last month before the voting period was the best predictor to forecast the vote share based on the Facebook 'likes'. Bene (2017) studied citizens' political reactivity triggered by social media during the 2014 general election in Hungary by analyzing 7048 Facebook posts by 183 candidates. It was found that the citizens were highly reactive to negative emotion-filled, personal, and activity-demanding posts. Some other studies have also shown a positive impact of Facebook on the election outcomes (Bing, 2015; Hsin-Chen, 2017; Larsson, 2015; Sani, 2014; Štětka & Mazák, 2014).

Several factors contribute towards the use of Internet and social media for seeking political and election related information. Aparaschivei (2011) felt that the impact of social media on election campaigns may differ in different countries, depending on the state of ICT infrastructure, digital literacy, access to the Internet, education, and income level of the voters. In terms of demographics and preferences for media sources, Althaus et al. (2009) reported that older and lower income individuals preferred using traditional channels such as television and print media for seeking the needed information, while the younger and more educated individuals preferred online sources. Certain characteristics of communication media can also affect their use for political and election-related information seeking. Two such attributes are information source credibility and information use convenience. The credibility issue of politically-oriented information sought through the Internet and social media was raised by several previous studies (Johnson & Kaye, 2014; Knobloch-Westerwick et al., 2015; Majid et al., 2012). Convenience and ease of receiving information can also impact the sources selection for seeking political and election-related information (Kim & Johnson, 2012; Lagos et al., 2014; Moody, 2011).

Although a large number of studies stress the influential role of the Internet and social media on election and political campaigning, several other studies present a different viewpoint and claim a limited role of these sources on election campaigning (Heng, 2011; McNamara & Kenning, 2011; Majid et al., 2012). McNamara and Kenning (2011) felt that 2007 Australian election was not a 'YouTube election' as claimed by many media and political commentators. Similarly, it was observed during Singapore general election 2011 that newspapers and TV were most popular among the voters (Heng, 2011), followed by the Internet. The newspapers were considered more reliable as they provided most comprehensive coverage, well-argued and balanced comments, in-depth analyses, and the most objective information whereas the Internet was considered more effective in providing up-to-date information. Hong, Lin, and Ang (2015) found that 40% of the Singapore's Internet users had never visited even a single political website or blog. A post-election survey of Singapore general election 2011 also showed that mainstream newspapers and television were considered the most important media in shaping public opinion, followed by the Internet and social media (Tan et al., 2011). They concluded that traditional mainstream media were considered more trustworthy by voters and thus Singapore general election 2011 cannot be regarded as an "Internet election". Baxter et al. (2013) studied voters' online behaviour during the 2011 Scottish parliamentary election campaign and concluded that there was no significant impact of online campaigning on voting behaviour. They pointed out that traditional information sources, particularly print and broadcast media, coupled with long-established campaign techniques, such as leaflet deliveries and door knocking, continue to be more influential in determining Scottish voters' democratic

choices. Karlsen (2010) also reported that during the Norway general election voters preferred using television, print newspapers, family and friends, and radio for seeking election-related information.

The literature review suggests that political parties across the world, in addition to traditional campaigning techniques, are using social media to reach out to their voters. However, most of these studies are inconclusive about the impact of Internet and social media on election results. A majority of the previous studies on political and election-related information seeking are limited to understanding of voters' preferences for different media platforms. Moreover, none of the studies have tried to map specific political information needs with the available information outlets. The aim of this study was to investigate the election-related information needs of voters, preferred information sources for seeking the needed information, and their perceptions of the credibility, biasness and timeliness of various information sources. It is expected that the findings of this study will be useful to political parties in developing their future election campaigns. Similarly, political commentators, information and communication researchers, and media experts engaged in building public image and designing election campaigns may also find these findings useful.

Methodology

A paper-based questionnaire was used for data collection. The questionnaire used by Majid et al. (2012) for the Singapore general election 2011 was adapted for this study. In addition, different information sources such as mainstream newspapers, TV and radio news and election-related programmes, socio-political websites, blogs and websites of political parties and their candidates were analyzed to identify the type of information often disseminated by these communication channels. The first section of the questionnaire collected demographic information about the respondents. They were also asked how actively they were using social networking sites as an observer and as a participant. The purpose was to investigate respondents' level of involvement in different social media activities. The next section of the questionnaire collected responses regarding source preference of the respondents for seeking general (non-political) news and information. This was followed by questions about election-related information needs and communication channels used for seeking the needed information. The last section of the questionnaire solicited data about respondents' perceptions of the credibility, timeliness, and biasness of election-related information accessible through different communication channels. The questionnaire was approved by the Institutional Review Board (IRB) of Nanyang Technological University, Singapore on September 25, 2015 (IRB-2015-09-011).

Singapore is a city state with only 2.46 million eligible voters (The Straits Times, 2015). The voting is mandatory and all voters are expected to vote. The convenience snowball method was used for data collection and the first group of the respondents were asked to further distribute copies of the questionnaire to other voters in their personal social network. The data collection work started two weeks after polling day to allow respondents to also indicate sources used by them for seeking election results as well as post-election news. The data collection work ended in the second week of November 2015. A total of 115 individuals participated in this study.

Findings and discussion

The following sections provide an analysis of the data collected through this survey.

Respondents' Profile

Of the 115 participants, 53% were female and 43.2% male. Two participants did not indicate their gender. A majority (60%) of the respondents were in the age group of 21 to 35 years (Table 1), followed by the respondents from the age group 36-50 years. Only two respondents were more than 65 years old. One possible reason for low participation by this group was convenience sampling as a majority of the initial respondents were young adults who distributed copies of the questionnaire to their friends and siblings. Another reason could be their limited familiarity with English language. Two previous surveys also recorded low participation by senior citizen in election-related research studies (Majid et al, 2012; Soon, 2016).

Table 1: Age of the respondents

Age Group	Frequency	Percent
21-35 years	69	60.0
36-50 years	27	23.5
51-65 years	17	14.8
>65 years	2	1.7
Total	115	100.0

Engagement in Social Media Activities

The respondents were asked about their level of engagement in social networking sites (SNS) as an observer and as a participant. The purpose was to investigate their familiarity and utilization of various social media platforms such as Facebook, Twitter, blogs, and YouTube, which may affect their use of these sites for seeking election-related news and information. A 5-point Likert scale was used to collect responses, where 1 was the least active and 5 was the most active (Table 2). The mean scores for using Facebook as an observer and as a participant were 3.71 and 2.57 respectively, meaning that the respondents were mostly reading the Facebook updates rather than posting their own updates or opinions. For Twitter, more respondents were contributing (mean: 2.91) than just reading tweets (mean: 1.85) from other individuals. The same trend was observed for blogs where a majority of the respondents were contributing (mean: 3.21) than only reading the posts (mean: 2.20). However, this trend was reversed for YouTube and the respondents were mostly viewing YouTube videos (mean: 3.48) than sharing their own videos (mean: 2.50). On the whole, it appeared that a majority of the respondents were familiar with various SNS platforms and had used these both as an observer and as a participant.

Table 2: Engagement on social networking sites

SNS Platform	As an Observer			As a Participant		
	N	Mean (1~5)	SD	N	Mean (1~5)	SD
Facebook	102	3.71	1.17	103	2.57	1.51
Twitter	72	1.85	1.23	107	2.91	2.27
Blogs	75	2.20	1.32	107	3.21	2.27
YouTube	95	3.48	1.30	103	2.50	1.95

Preferred Sources for Seeking General News/Information

The respondents were asked about their preferred sources for getting general (non-political) news and other needed information. The purpose was to investigate possible relation between their general information seeking and election-related information behavior. As shown in Table 3, the four most preferred information channels for getting general news and information were: news websites (mean: 3.74), print newspapers (mean: 3.46), television (mean: 3.42), and Facebook (mean: 3.36). In contrast, the least preferred communication channels were friends and relatives (mean: 2.34), Twitter (mean: 1.88), and blogs (mean: 1.85).

Furthermore, the respondents were asked about their use frequency of these channels for seeking general news and information. For the ranking of these sources, the data from the first two columns (i.e. 3-4 times daily and 1-2 times daily) were combined (Table 4). The most heavily used information communication channels were news websites (62.0% respondents), Facebook (56.2%), television (51.3%), and print newspaper (48.3%). It appeared that the respondents were more heavily using news websites compared to their print counterparts for seeking general news and information. It is understandable as most of the new websites provide more up-to-date information as well as breaking news.

Table 3: Preferred sources for getting general news and information

Rank	Source	N	Mean (1~5)	SD
1	News Websites	114	3.74	1.37
2	Newspaper (print)	114	3.46	1.34
3	Television	113	3.42	1.29
4	Facebook	110	3.36	1.87
5	Other online media (forums, etc.)	111	2.84	1.17
6	Printed materials	109	2.84	1.17
7	Websites	112	2.73	1.22
8	Radio	109	2.46	1.29
9	Friends and relatives	108	2.34	1.07
10	Twitter	107	1.88	1.23
11	Blogs	106	1.85	1.06

On the contrary, those information sources which were either ‘irregularly’ or ‘never’ used included: online media (14.2% respondents), Twitter (12.5%), blogs (10.8%), and printed materials such as brochures and flyers (10.7%). On the whole, it appeared that news websites, Facebook, television, and print newspapers were the most heavily used communication channels for seeking regular news.

Table 4: Use frequency of sources for seeking general news and information

Rank	Source	3-4 times a day	1-2 times a day	3-4 times a week	Irregularly	Never
1	News websites	30.1%	31.9%	15.9%	17.7%	4.4%

2	Facebook	33.9%	22.3%	17.9%	17.9%	8.0%
3	Television	12.2%	39.1%	16.5%	26.1%	6.1%
4	Newspaper (print)	4.4%	43.9%	14.0%	28.9%	8.8%
5	Radio	7.9%	21.1%	12.3%	36.8%	21.9%
6	Various websites	6.3%	12.5%	14.3%	50.9%	16.1%
7	Friends and relatives	11.8%	6.4%	19.1%	45.5%	7.3%
8	Other online media (e.g. forums)	7.1%	7.1%	29.2%	42.5%	14.2%
9	Twitter	7.1%	5.4%	8.0%	17.0%	62.5%
10	Blogs	3.6%	7.2%	14.4%	37.8%	36.9%
11	Printed materials (brochures, flyers, etc.)	3.6%	7.1%	9.8%	58.9%	20.5%

The Spearman correlation analysis revealed significant correlations between age and preference for print newspapers ($r=0.365$, $p=.000$) and television ($r=0.189$, $p=.045$). This means that older respondents had a higher preference for print newspapers and television compared to younger participants. However, a significant negative correlation was found between age and preference for Facebook ($r= -0.274$, $p=.004$). This means as age increases, the level of preference for Facebook decreases.

Election-related Information Needs

The respondents were asked what types of information they had sought during Singapore general election 2015. As mentioned in the section on methodology, this survey was conducted two weeks after the election. The respondents were provided a list of ten possible information types with an open-ended option. As shown in Table 5, the most sought after election-related information were: candidates' profiles (82.6% of respondents), speeches by the candidates (77.4%), general election news (76.5%), and election results (71.3%). It was surprising to note that only 56.5% of the respondents sought information about manifestos of contending political parties. An earlier study by Majid et al. (2012) on Singapore general election 2011 also reported a limited interest of voters in the manifestos of different political parties.

The least sought after election-related news and information were: information about public rallies (38.2%), public gathering places to collectively listen to election results (26.1%), and schedule of candidates' community walks (14.7%). It appeared that a majority of the voters were more interested to know about candidates in their constituencies through seeking information about their personal profiles and speeches. However, they were less interested in information about election gatherings and rallies, indicating their limited interest in active participation in such election-related events.

Table 5: Election-related information needs (N=115)

Rank	Information Need	Frequency	Percent
1	Candidates' profiles	95	82.6
2	Speeches by candidates and other related news/incidences during rallies	89	77.4
3	General election news (e.g., nomination and polling day, electorate boundaries etc.)	88	76.5

4	Results and other related news	82	71.3
5	Interviews/message conveyed by candidates	68	59.1
6	Manifesto of each party	65	56.5
7	Experts analyses	53	46.1
8	Information about the rallies (e.g. time, venue, etc.)	44	38.2
9	Information about public gathering points on polling day to watch results	30	26.1
10	Information about candidates' walkabout (e.g. time, venue, etc.)	17	14.7

Frequency of election-related information seeking

The respondents were asked how frequently they had used different information sources for seeking election-related news and information. The same set of 11 information sources used for gathering data for general news/information was used for this question. The purpose was to investigate if the source preference for election-related information was different from those used for routine news and information seeking. Once again, data from the first two columns (3-4 times daily and 1-2 times daily) were combined to determine ranking of these sources (Table 6). The highest percentage (61.4%) of the respondents reported using news websites at least once daily for getting election-related information, followed by Facebook (58.9%), and television (57.0%). The number of respondents who used radio and print newspaper at least once daily for seeking election-related news and information were 51.3 and 46.4% respondents respectively. It was worth noting that the first five positions of communication channels used by the respondents for seeking general news and election-related news were the same, except for print newspapers which dropped one position for the election-related news and appeared at the fifth position. This was probably because other information sources in the top list could provide more up-to-date information which was not possible for print newspapers.

Table 6: Use of sources for seeking election-related news and information (N=115)

Rank	Source	3-4 times daily	1-2 times daily	3-4 times a week	Irregularly	Never
1.	News websites	27.2%	34.2%	18.4%	14.9%	5.3%
2.	Facebook	34.8%	24.1%	15.2%	16.1%	8.9%
3.	Television	19.3%	37.7%	15.8%	19.3%	7.9%
4.	Radio	29.7%	21.6%	13.5%	25.2%	31.5%
5.	Newspaper (print)	9.6%	36.8%	21.9%	19.3%	12.3%
6.	Friends and relatives	11.7%	18.9%	26.1%	31.5%	11.7%
7.	Other online media (e.g. forums)	9.6%	18.4%	24.6%	31.6%	14.9%
8.	Various websites	8.0%	16.8%	19.5%	33.6%	22.1%
9.	Twitter	9.1%	8.2%	6.4%	14.5%	60.9%

10.	Printed materials (brochures, flyers).	5.5%	9.1%	17.3%	45.5%	22.7%
11.	Blogs	2.8%	9.2%	8.3%	29.4%	49.5%

Some other interesting trends were also observed for communication channels used for seeking election-related news and information. Friends and relatives were more frequently used for seeking election-related news/information compared to general news. It was probably because these people could also share certain election-related news and gossips which might not be covered by mainstream mass media as well as the social media. Similarly, compared to general news, the respondents more frequently used the remaining sources (i.e. online forums, Twitter, blogs, and printed material such as brochures and flyers) for seeking election-related information. On the whole, it appeared that during the election period voters become more active information seekers and use multiple sources, particularly those sources that can provide up-to-date news and information.

Knowledge of Singapore Political Scene

The respondents were asked about their knowledge of political scene in Singapore. The purpose was to find out relationship between political knowledge and the frequency of information utilization. Three out of four (75%) respondents claimed to have 'adequate' political knowledge, while 5.8% said that they have 'very adequate' knowledge of Singapore politics. The remaining 19.2% of the respondents felt that they have 'inadequate' knowledge of Singapore political scenario.

A further analysis showed that 94.2% of the male respondents considered their knowledge of Singapore politics either 'adequate' or 'very adequate' (Table 7). On the contrary, only 73.4% of the female considered their political knowledge at these levels. Among the age groups, 22.6% of the voters in the age group 21-35 years considered their political knowledge 'inadequate'. This percentage was 12.5% for the age group of 36-50 years and 18.7% for 51-65 years old respondents.

Table 7: Political knowledge of the respondents

		N	Inadequate	Adequate	Very Adequate
Gend	Male	44	6.8%	85.1%	9.1%
	Female	58	27.6%	70.0%	3.4%
Age Group	21-35 years	62	22.6%	75.8%	1.6%
	36-50 years	24	12.5%	75.0%	12.5%
	51-65 years	16	18.7%	75.0%	6.3%
	> 65 years	2	-	50%	50%

The Spearman rank correlation was used to investigate the relationship between political knowledge and usage frequency of various information channels. A significant positive

correlation was found between respondents' perceived level of political knowledge and their use frequency of different information channels ($r=.623$; $p=.017$). This means those respondents who perceived themselves to be more politically knowledgeable were more frequently using a variety of communication channels. A study by Kavanaugh (2016) also showed that individuals considering themselves politically aware are more likely to use diverse media for satisfying their information needs.

Source preference for specific information needs

The respondents were asked what information communication channels they had used during the election time for seeking specific election-related news and information. The purpose was to map specific information needs with relevant information communication channels. As shown in Table 8, the most preferred channels for acquiring general election-related information (e.g. nomination date, time and venue; polling hours; electoral boundaries, etc.) were: news websites (54.8%), print newspaper (49.6%), and television (49.6%). The least preferred sources for seeking general election-related news and information were: print election materials (e.g. brochures, flyers, posters, etc.) (10.4%), radio (10.4%), blogs (4.3%), and Twitter (3.5%).

As reported in section 4.4, the most sought after information among all election-related information needs was profiles of the candidates, their qualifications, political and work experiences, service to the community, etc. The most preferred communication channels for obtaining this information were: print newspapers (44.3%), television (35.7%), and Facebook (33.0%). On the contrary, the least preferred communication channels for getting information about the candidates' profiles were: radio (8.7%), blogs (5.2%), and Twitter (4.3%). The top three communication channels for seeking information about speeches made by the candidates and other relevant news/information were: Facebook (67.8%), online media (67%), and television (62.6%), and the least preferred sources for this purpose were: printed materials (13.0%), blogs (9.6%), and Twitter (7%). Similarly, the most popular channels for getting information about candidates' interviews and messages were: Facebook (61.7%), television (55.7%), and news websites (52.2%), while the least popular were: onsite presence (7.8%), blogs (7.0%), and Twitter (3.5%). On the whole, it appeared that Facebook, television, and other online media were considered more useful for getting candidates-specific information. On the contrary, Twitter and blogs were considered the least useful platforms for getting this information.

As presented in section 4.4, the information about manifestos of political parties was not heavily sought after information. However, those respondents who were interested in this information, used print newspapers (32.2%), television (29.6%), and Facebook (28.7%) to obtain this information. The least used communication channels for seeking information about parties' manifestos were: radio (7.0%), blogs (4.3), and Twitter (1.7%).

Source preference for the remaining five information needs, i.e. expert's analyses, information about election rallies, candidates' community walks, results and related news, and gathering points of different political parties for their workers to collectively listen to the election results, were almost the same with some variation in their usage frequency.

The respondents were also provided an option in this question to indicate what information sources they did not use during the election period. It was interesting to note that while a majority of the voters were interested to seek information about candidates' profiles, their speeches, and interviews, they were not very keen to directly interact with the candidates or to know about their neighbourhood visit schedules. It was evident from the fact that 47.8% of the

respondents said that they did not seek information about candidates' community walks/ visits to their constituency. Other types of information not actively sought after by the respondents were: gathering points for party workers to listen to election results together (38.3%), information about election rallies (27.8%), experts' analyses of political commentators (27.8%), and manifestos of the political parties (20.9%).

It would be interesting to further analyse data about heavily used information communication channels like news websites, Facebook, television and print newspapers from another angle and discuss what types of information were sought through these channels. News websites, the top ranked communication channel (Table 6), were used to access general election-related information, speeches made by the candidates, and their interviews and messages. Facebook was second in the ranking and was mainly used for obtaining information about speeches made by the candidates, their interviews and messages, and for getting general election news. Television was preferred for getting information about election results, candidates' speeches, and their interviews. Print newspapers were used for speeches made by the candidates, general election news, and interviews given by the candidates.

Perception of the Quality of Communication Channels

This section presents respondents' perceptions of the quality of different information communication channels which disseminated election-related news and information. Three quality attributes used for this study were source credibility, timeliness, and biasness.

Table 8: Sources used for specific information needs (multiple response - in %)

Category	News - paper (print)	News websites	TV	Radio	Face - book	Twitter	Blogs	Political websites	Other online media	Printed materials	Friends and relatives	Actual presence onsite	I did not seek this information
General election news and information	49.6	54.8	49.6	10.4	38.3	3.5	4.3	19.1	17.4	10.4	16.5	NA	6.1
Candidates' profiles	44.3	32.2	35.7	8.7	33.0	4.3	5.2	26.1	20.0	16.5	16.5	NA	9.6
Speeches made by candidates	51.3	53.0	62.6	14.8	67.8	7.0	9.6	13.9	38.3	13.0	32.2	17.4	3.5
Candidates' Interviews and messages	47.0	52.2	55.7	13.0	61.7	3.5	7.0	12.2	30.4	8.7	26.1	7.8	10.4
Manifesto of political parties	32.2	27.0	29.6	7.0	28.7	1.7	4.3	31.3	14.8	14.8	12.2	NA	20.9
Experts' analyses	27.0	32.2	35.7	6.1	26.1	3.5	8.7	5.2	15.7	1.7	8.7	NA	27.8
Information about election rallies	29.6	34.8	26.1	8.7	24.3	3.5	1.7	10.4	13.0	2.6	6.1	NA	27.8
Candidates' community walks information	22.6	17.4	17.4	5.2	19.1	3.5	1.7	9.6	8.7	2.6	5.2	NA	47.8
Results and related news	35.7	45.2	63.5	8.7	35.7	9.6	3.5	6.1	15.7	1.7	10.4	NA	3.5
Gathering points to hear election results together	26.1	23.5	28.7	8.7	21.7	3.5	1.7	11.3	10.4	5.2	7.8	NA	38.3

NA: Not Applicable

Source credibility

The respondents were asked about their perception of the credibility of various communication channels which disseminated election-related news and information. A 5-point Likert scale was used for collecting data, where 1 presented 'least credible' and 5 'highly credible'. As presented in Table 9, the top three most credible sources for seeking election-related news and information were: television (mean: 3.72), print newspapers (mean: 3.64), and news websites (mean: 3.63). Several previous studies also reported that voters consider mainstream media more credible for obtaining political and election-related information (Johnson & Kaye, 2014; Knobloch-Westerwick et al., 2015; Majid 2012; Tan et al., 2011). Election related government websites such as Singapore Elections Department, and political parties' websites were also considered trustworthy for obtaining credible information (mean: 3.60).

Table 9: Perceived credibility of information sources

Rank	Source	N	Mean (1~5)	SD
1	Television	113	3.72	1.11
2	Newspaper (print)	114	3.64	1.21
3	News websites	112	3.63	1.10
4	Election-related websites	113	3.60	1.07
5	Radio	111	3.46	1.11
6	Facebook	111	2.95	0.98
7	Election-related print materials	111	2.90	1.00
8	Other online media (i.e. forums)	111	2.79	0.93
9	Friends and relatives	111	2.54	0.97
10	Twitter	104	2.34	1.07
11	Blogs	105	2.12	0.98

In contrast, Twitter and blogs were considered the least credible with mean scores of 2.34 and 2.12 respectively. These findings endorse some previous studies in Singapore (Majid 2012; Tan et al., 2011) as well as in other countries where voters considered social media comparatively less credible for seeking election-related information (Baxter et al., 2013; Karlsen, 2010; McNamara and Kenning, 2011).

The Spearman correlation analysis revealed significant positive correlations between age and the perceived credibility of print newspapers ($r=.184$, $p=.050$) and television ($r=.251$, $p=.007$). This means older voters considered print newspapers and television more credible than the younger voters. On the contrary, significant negative correlations were found between age and the perceived credibility of Facebook ($r= -.193$, $p=.043$) and Twitter ($r= -.236$, $p=.016$), meaning that the perceived credibility of these social media platforms decreased with increase in voters' age.

Source timeliness

During general elections, the timely access to information is vital to keep abreast of latest developments. The respondents were asked what communication channels provided them more timely election-related news and information. A 5-point Likert scale was used to collect data, where 1 was the 'least timely' and 5 was the 'most timely'. As presented in Table 10, the top

three communication channels providing timely news and information were: news websites (mean: 4.00), Facebook (mean: 3.93), and television (mean: 3.79). Radio was also considered another source for getting up-to-date election-related information (mean: 3.63). These findings are in line with some previous studies where mainstream media was considered a preferred source for getting timely election-related news and information (Heng, 2011; Karlsen, 2010; Majid et al., 2012; Tan et al., 2011). Information outlets considered the least up-to-date were: blogs (mean: 2.66), and election-related print materials (mean: 2.25). These findings support some previous studies which also suggested that printed materials were not considered useful in getting latest election-related information (Himmelboim et al., 2013).

Table 10: Perceived timeliness of information sources

Rank	Source	N	Mean (1~5)	SD
1	News websites	113	4.00	0.99
2	Facebook	111	3.93	1.07
3	Television	112	3.79	0.98
4	Radio	108	3.63	1.14
5	Twitter	106	3.55	1.34
6	Other online media (i.e. forums)	110	3.30	0.96
7	Election-related websites	111	3.27	1.03
8	Newspaper (print)	113	3.13	1.17
9	Friends and relatives	108	2.83	1.14
10	Blogs	103	2.66	1.13
11	Election-related print materials	110	2.25	1.02

Sources biasness

In political information communication and utilization, it is important to understand voters' perception of source biasness. The respondents were asked about their perception of impartiality of information communication channels providing election-related information. A 5-point Likert scale was used to capture respondents' opinion, where 1 was the 'least biased' and 5 was 'extremely biased'. It was worth noting that mean scores for all the listed information sources were more than 3, reflecting the opinion of voters that none of the channels provided unbiased or objective election-related news and information (Table 11). However, the communication channels considered the most biased were: election-related print materials produced by candidates and their political parties (mean: 3.73), blogs (mean: 3.57), and election-related websites, including websites of political parties (mean: 3.53). Some previous studies also suggest that certain social media platforms are considered biased by the voters (Majid et al., 2012; Tan, et al, 2011).

Table 11: Perceived biasness of information sources

Rank	Source	N	Mean (1~5)	SD
1	Election-related print materials	111	3.73	1.01
2	Blogs	106	3.57	1.19

3	Election-related websites	114	3.53	1.05
4	Friends and relatives	112	3.44	1.05
5	News websites	114	3.28	1.18
5	Newspaper (print)	114	3.28	1.18
7	Other online media (e.g. forums)	113	3.27	1.05
8	Television	114	3.21	1.17
9	Twitter	107	3.20	1.13
10	Radio	112	3.17	1.10
11	Facebook	113	3.09	1.11

Discussion

Most of the previous studies on voters' information behaviour have mainly focused on understanding their preferences for different communication channels (Althaus, 2009). In addition to other factors, this study has also investigated voters' election-related information needs and mapped these needs with different communication platforms. It was found that there was not much difference in source preference for seeking general news/information and election-related information seeking. A majority of the respondents preferred using traditional mainstream communication channels such as television, newspapers (online and print), and radio for getting general as well as election-related news and information. From the social media, only Facebook was among the top five most preferred sources. On the whole, it appeared that those communication channels which were previously used and trusted by the respondents for seeking quality general news and information, the same outlets were also used for satisfying election-related information needs.

This study also investigate election-related specific information needs of the voters. It was interesting to note that a majority of the respondents wanted to know more about candidates in their constituencies rather than manifestos of political parties. They mostly sought information about the candidates' profiles, their academic qualifications, track record of community service, political and work experience, and their understanding of and thoughts about the neighbourhood problems and their possible solutions. It was also found that although voters were interested to know about speeches made by their candidates, they were not keen to actively participate in the election-related activities such as meeting the candidates or to know about their neighbourhood visits. It was worth noting that a considerable percentage (43.5%) of the voters was not interested in the manifestos of contesting political parties as well as to know the time and venue of their election rallies. On the whole, it appeared that the voters were more interested in their own constituency than national level problems and issues. It was probably because the national political scene in Singapore is very stable and only one political party has been ruling it since country's independence in 1965. The voters might already be aware of the manifesto and future plans of the ruling party. Similarly, over one-half (53.9%) of the respondents were not interested in experts' analyses of political commentators. Once again it may be due to stable political situation in Singapore and, as a result, voters might not be interested in political commentaries and analyses. Nevertheless, those voters who perceived themselves politically knowledge were more frequently using various information channels disseminating political and election-related news and information.

Mapping of various election-related information needs with different communication channels also revealed some interesting trends. Both print and online newspapers were considered useful

in getting general election news, and candidates' speeches and interviews. Television was preferred for getting election results, and speeches made by the candidates. On the other hand, Facebook was more heavily used for seeking information about the individual candidates, their speeches and interviews. It appeared that traditional mainstream media was preferred for getting general election news, election results and speeches made by some prominent and well-known candidates. On the other hand, Facebook was considered more useful for getting news and information about individual candidates. It is understandable as not all candidates get adequate coverage in the mainstream media and voters need to look for alternate sources for seeking information about them.

It was also worth noting that, except Facebook, other social media platforms were not heavily used by the voters. It was not surprising as other studies on Singapore elections in 2011 and 2015 also reported the limited use of social media for seeking election-related news and information (Heng, 2011; Hong, Lin, & Ang, 2015; Majid, 2012). Although several studies in other countries talk about the use of social media, particularly Twitter and blogs, for election campaigning by political parties and their candidates, only a few studies endorse voters' preference for these outlets. It seems there is a mismatch between the perceived importance of social media platforms by political parties and their actual use by voters. One possible explanation could be that voters do not consider social media credible for seeking objective and unbiased political information and probably that is why they prefer using mainstream communication channels such as television and newspapers. Although television channels and newspapers could have their own bias and political orientation, they are still considered more reliable than social media platforms.

Conclusion

This study was different from many previous studies as it investigated specific information needs of voters and various communication channels used by them for satisfying these needs. While the findings of the study cannot be fully generalised due to small sample size and convenience snowball sampling, it nevertheless highlighted the need for more in-depth investigations to adequately understand information behaviour of voters. For the convenience snowball sampling, students and faculty of Nanyang Technological University were used as a starting point for the questionnaire distribution. They were asked to distribute copies of the questionnaire through their social networks, including friends, colleagues, family members, and relatives. The feedback received from some of the first stage participants was that their parents and older relatives considered election as a 'sensitive' topic and were reluctant to participate. Most of the young adults and matured voters did not have such reservations.

Another possible reason for the low rate of returns could be due to the absence of incentives for respondents, and the time period allocated for the data collection. While more time given to this could potentially yield more returns, the researchers were cognisant of the fact that the interest of elections can die off fairly rapidly once the results are announced and the winning party made known. Thus a longer time lag could potential yield returns that may be affected by this loss of interest. Nonetheless, future studies should try to get a more representative sample by including respondents from different age groups through stratified sampling and providing survey incentives to increase the number of returns to enable more generalizable conclusions.

Similarly, this study also showed that election-related information needs and seeking is a very complex behaviour and merely investigating the source preferences, as done by many previous

studies, cannot answer all the essential questions. Although many political commentators claim that social media platforms now play a big role in political campaigning and election outcomes, several studies in different parts of the world do not fully endorse this perception. It is, therefore, desirable that future studies should try to understand different dimensions of voters' information behaviour. It is important as many political parties are designing their election campaigns based on certain unproven perceptions which may result in wastage of their time and resources. A thorough understanding of voters' information need and information seeking behaviour will help political parties, contesting candidates, media strategists, media houses, and communication experts to properly design their public campaigns.

References

- Ahmed, S., Jaidka, K. and Cho, J. 2016. The 2014 Indian elections on Twitter: A comparison of campaign strategies of political parties. *Telematics & Informatics*, Vol. 33, no. 4: 1071-1087. doi:10.1016/j.tele.2016.03.002
- Althaus, S.L., Cizmar, A.M. and Gimpel, J.G. 2009. Media supply, audience demand, and the geography of news consumption in the United States. *Political Communication*, Vol. 26, no. 3: 249-277. doi:10.1080/10584600903053361
- Aparaschivei, P. 2011. The use of new media in electoral campaigns: Analysis on the use of blogs, Facebook, Twitter and YouTube in the 2009 Romanian presidential campaign. *Journal of Media Research*, Vol. 4, no. 2: 39-60.
- Barclay, F.P., Pichandy, C., Venkat, A. and Sudhakaran, S. 2015. India 2014: Facebook 'Like' as a predictor of election outcomes. *Asian Journal of Political Science*, Vol. 23, no. 2: 134-160. doi:10.1080/02185377.2015.1020319
- Baxter, G., Marcella, R., Chapman, D. and Fraser, A. 2013. Voters' information behaviour when using political actors' web sites during the 2011 Scottish parliament election campaign. *Aslib Proceedings*, Vol. 65, no. 5: 515-533.
- Bene, M. 2017. Go viral on the Facebook! Interactions between candidates and followers on Facebook during the Hungarian general election campaign of 2014. *Information, Communication & Society*, Vol. 20, no. 4: 513-529. doi:10.1080/1369118X.2016.1198411
- Bing, N. 2015. Kenya decides: Kiswahili, social media and politics in Kenya's 2013 general elections. *Journal of African Media Studies*, Vol. 7, No. 2: 165-183. doi:10.1386/jams.7.2.165_1
- Cameron, M. P., Barrett, P., & Stewardson, B. 2016. Can social media predict election results? Evidence from New Zealand. *Journal of Political Marketing*, Vol. 15, no. 4: 416-432. doi:10.1080/15377857.2014.959690
- Caldarelli, G., Chessa, A., Pammolli, F., Pompa, G., Puliga, M., Riccaboni, M. and Riotta, G. 2014. A multi-level geographical study of Italian political elections from Twitter sata. *Plos ONE*, Vol. 9, no. 5: 1-11. doi:10.1371/journal.pone.0095809
- Carlson, T. 2008. Riding the Web 2.0 wave: Candidates on YouTube in the 2007 Finnish national elections. *Journal of Information Technology & Politics*, Vol. 5, no. 2: 159-174.
- Enli, G. 2017. Twitter as arena for the authentic outsider: exploring the social media campaigns of Trump and Clinton in the 2016 US presidential election. *European Journal of Communication*, Vol. 32, no. 1: 50-61. doi:10.1177/0267323116682802
- Garett, R. and Danziger, J.N. 2011. The Internet electorate. *Communications of the ACM*, Vol. 54, no. 3: 117-123.

- Gibson, R.K. and McAllister, I. 2011. Do online campaigns win votes? The 2007 Australian 'YouTube' election. *Political Communication*, Vol. 28, no. 2: 227-244.
- Graham, T., Jackson, D. and Broersma, M. 2016. New platform, old habits? Candidates' use of Twitter during the 2010 British and Dutch general election campaigns. *New Media & Society*, Vol. 18, no. 5: 765-783. doi:10.1177/1461444814546728
- Heng, J. 2011. ST's election coverage has improved: Readers. *The Straits Times (Newspaper)*, October 3, 2011, p 8.
- Hanson, G., Haridakis, P. and Sharma, R. 2011. Differing uses of YouTube during the 2008 U.S. presidential primary election. *Electronic News*, Vol. 5, no. 1: 1.
- Himmelboim, I., Hansen, D. and Bowser, A. 2013. Playing in the same twitter network: Political information seeking in the 2010 US gubernatorial elections. *Information Communication & Society*, Vol. 16, no. 9: 1373-1396.
- Hong, Y., Lin, T.C. and Ang, P.H. 2015. Innovation resistance of political websites and blogs among Internet users in Singapore. *Journal of Comparative Asian Development*, Vol. 14, no. 1: 110-136. doi:10.1080/15339114.2015.1004825
- Hsin-Chen, L. 2017. How political candidates' use of Facebook relates to the election outcomes. *International Journal of Market Research*, Vol. 59, no. 1: 77-96. doi:10.2501/IJMR-2017-004
- Infocomm Development Authority (IDA) of Singapore. 2016. *Households and individuals*. Available at: <https://www.ida.gov.sg/Tech-Scene-News/Facts-and-Figures> (accessed 26 October 2016).
- Johnson, T.J. and Kaye, B.K. 2014. Credibility of social network sites for political information among politically interested Internet users. *Journal of Computer-Mediated Communication*, Vol. 19, no. 4: 957-974. doi:10.1111/jcc4.12084
- Kaye, B.K. and Johnson, T.J. 2002. Online and in the know: Uses and gratifications of the Web for political information. *Journal of Broadcasting & Electronic Media*, Vol. 46, no. 1: 54-71. doi: 10.1207/s15506878jobem4601_4
- Karlsen, R. 2010. Does new media technology drive election campaign change? *Information Polity: International Journal of Government & Democracy in the Information Age*, Vol. 15, no. 3: 215-225.
- Kavanaugh, A. L., Sheetz, S. D., Sandoval-Almazan, R., Tedesco, J. C., & Fox, E. A. 2016. Media use during conflicts: Information seeking and political efficacy during the 2012 Mexican elections. *Government Information Quarterly*, Vol. 33, no. 3: 595-602
- Kim, D. and Johnson, T.J. 2012. Political blog readers: Predictors of motivations for accessing political blogs. *Telematics & Informatics*, Vol. 29, no. 1: 99-109. doi:10.1016/j.tele.2011.04.003
- Knobloch-Westerwick, S., Johnson, B.K. and Westerwick, A. 2015. Confirmation bias in online searches: Impacts of selective exposure before an election on political attitude

- strength and shifts. *Journal of Computer-Mediated Communication*, Vol. 20, no. 2: 171-187. doi: 10.1111/jcc4.12105
- Lagos, T.G., Coopman, T.M. and Tomhave, J. 2014. Parallel poleis: Towards a theoretical framework of the modern public sphere, civic engagement and the structural advantages of the internet to foster and maintain parallel socio-political institutions. *New Media & Society*, Vol. 16, no. 3: 398-414. doi:10.1177/1461444813487953
- Larsson, A.O. 2015. Green light for interaction: Party use of social media during the 2014 Swedish election year. *First Monday*, Vol. 20, no. 12: 3-4.
- Larsson, A.O. and Ihlen, Ø. 2015. Birds of a feather flock together? Party leaders on Twitter during the 2013 Norwegian elections. *European Journal of Communication*, Vol. 30, no. 6: 666-681. doi:10.1177/0267323115595525
- Majid, S., Sharon, C.P., Tee-Yin, C. and Hui-Ling, N. 2012. The role of social media in information seeking during Singapore general election 2011. Paper presented in CONSAL XV Conference, 28 May 01 June, 2012, at Bali, Indonesia.
- McNamara, J. and Kenning, G. 2011. E-electioneering 2010: Trends in social media use in Australian political communication. *Media International Australia*, Vol. 139: 7-22.
- Miller, N.W. and Ko, R.S. 2015. Studying political microblogging: Parliamentary candidates on Twitter during the February 2012 election in Kuwait. *International Journal of Communication (19328036)*, 92933-2953.
- Moody, K.E. 2011. Credibility or convenience? Political information choices in a media-saturated environment. *Media International Australia*, Vol. 140: 35-46.
- Nulty, P., Theocharis, Y., Popa, S. A., Parnet, O., & Benoit, K. 2016. Social media and political communication in the 2014 elections to the European Parliament. *Electoral Studies*, 44429-444. doi:10.1016/j.electstud.2016.04.014
- Perez-Pena, R. 2008. Underdog taps YouTube to election close. *New York Times*, 06 February, pp. 6.
- Reilly, I. 2011. Amusing ourselves to death? Social media, political satire, and the 2011 election. *Canadian Journal of Communication*, Vol. 36, no. 3: 503-511.
- Sani, M. A. 2014. The social media election in Malaysia: The 13th general election in 2013. *Kajian Malaysia: Journal of Malaysian Studies*, Vol. 32: 123-147.
- Segaard, S.B. and Nielsen, J.A. 2013. Local election blogs: Networking among the political elite. *Information Polity: The International Journal of Government & Democracy in the Information Age*, Vol. 18, no. 4: 299-313. doi:10.3233/IP-130314
- Smith, A. 2009. The Internet and the 2008 election. Available at: <http://www.pewinternet.org/Reports/2009/6--The-Internets-Role-in-Campaign-2008.aspx>

- Soon, C. and Samsudin, S.N. 2016. General election 2015 in Singapore: What social media did and did not do? *The Round Table: The Commonwealth Journal of International Affairs*, Vol. 105, no. 2: 171-184.
- Štětka, V. and Mazák, J. 2014. Whither slacktivism? Political engagement and social media use in the 2013 Czech parliamentary elections. *Cyberpsychology*, Vol. 8, no. 3: 85-105. doi:10.5817/CP2014-3-7
- Tan, T.H., Mahizhnan, A. and Ang, P.H. 2011. Media myths and realities: findings of national survey of media use in the general election. Available at: http://lkyspp.nus.edu.sg/ips/wp-content/uploads/sites/2/2013/06/S1_1_Tan-Tarn-How_0410.pdf.
- The Straits Time. July 2015. Voters can check which constituency they now belong to. Available at: <https://www.gov.sg/news/content/the-straits-times---voters-can-check-which-constituency-they-now-belong-to>.
- Wattal, S., Schuff, D., Mandviwalla, M. and Williams, C.B. 2010. Web 2.0 and politics: the 2008 U.S. presidential election and an e-politics research Agenda. *MIS Quarterly*, Vol. 34, no. 4: 669-688.
- Winneg, K.M., Hardy, B.W. and Jamieson, K.H. 2010. Did citizens' preferences for online sources for campaign information impact learning during the 2008 U.S. general election? *Conference Papers -- American Political Science Association*, 1-25.
- Zhang, W. 2016. Social media and elections in Singapore: comparing 2011 and 2015. *Chinese Journal of Communication*, Vol. 9, no. 4: 367-384. doi:10.1080/17544750.2016.1231129