

SECOND SCREENING

Second Screening Politics in the Social Media Sphere: Advancing Research on Dual Screen Use in Political Communication with Evidence from 20 Countries

Homero Gil de Zúñiga and James H. Liu

The pervasive use of multiple technological tools to engage with media and political content (i.e., TV sets, laptops, tablets, smartphones, etc.) has deeply altered the way citizens around the world consume information and discuss public affair issues. Many are using 2, or even several “screens” at the same time to do so, a phenomenon known as second or dual screening.

The goal of this article is twofold. First, it introduces a set of novel studies published as a special section devoted to second screening. Second, based on nationally representative original survey data collected in twenty societies (N = 22,033), the study depicts a snapshot of second screening habits for news and politics around the world. Findings reveal that young people tend to second screen more than older counterparts. Similarly, there are also differences in political behaviors between groups of high and low frequency second screen users. More intensive users tend to politically express themselves in social media, and participate more often in offline political activities. On the other hand, results indicate little or no differences between these two groups in terms of their voting behavior.

For many people across the globe, social media remains omnipresent in everyday life (Greenwood, Perrin, & Duggan, 2016; We Are Social & Hootsuite, 2017). Its general impact on social life has been empirically documented at many levels.

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For instance, social media has altered economic behaviors (Benkler, 2006; Kirtiş & Karahan, 2011), medical and health management of diseases (Hawn, 2009; Merolli, Gray, & Martin-Sanchez, 2013), law and governmental policies (Bertot, Jaeger, & Hansen, 2012; Janssen, Charalabidis, & Zuiderwijk, 2012), and even social and family relations (Oh, Ozkaya, & LaRose, R, 2014; O’Keeffe, & Clarke-Pearson, 2011). The field of political communication is not immune to this trend (Garret et al., 2012). Social media touches most aspects of social and public life (Papacharissi, 2016); consuming news, discussing important issues with others, getting closer to journalists, interacting with political officials, and reaching governmental bodies is viable with just a few taps of the fingers (Bennett, 2012; Howard & Parks, 2012; Stieglitz & Dang-Xuan, 2013).

In the last decade, scholars have amply observed several important effects of social media use on political behavior. In particular, when people use social media for specific news and informational purposes, they are also more likely to discuss public affairs, express political attitudes and opinions online, and learn about political issues (Bode, 2016; Gil de Zúñiga, Molyneux, & Zheng, 2014). They are also more open to political persuasion (Bond et al., 2016), more likely to participate in protests and in political activities more broadly, and engage in political consumerist undertakings (Barberá, Jost, Nagler, Tucker, & Bonneau, 2015; Bode, 2017; Boulianne, 2015; Gil de Zúñiga, Copeland, & Bimber, 2014; Skoric, Zhu, & Pang, 2016; Theocharis & Lowe, 2016; Vaccari et al., 2015; Valenzuela, 2013; Xenos, Vromen, & Loader, 2014). Social media use for news has also been considered a catalyst platform for online deliberation (Halpern & Gibbs, 2013).

But perhaps the most recent phenomena in the areas of social media and digital news are dual screening and multitasking uses of social media. Many citizens today consume live content on TV, or any other screen, while enriching that experience with a second “screen” to interact with that content. As a seminal study on the topic defined it (Gil de Zúñiga, García-Perdomo, & McGregor, 2015, p. 5), second screening for news is “a process in which individuals watching television use an additional electronic device or “screen” to access the internet or social networking sites to obtain more information about the program or event they are watching or to discuss it in real time.” According to Nielsen (2011), nearly 70% of smartphone owners use the device while watching TV. Dual screening for news and politics has become a burgeoning field, and it will only grow in importance as mobile and multiplatform news technologies evolve in the future (e.g., De la Peña et al., 2010).

Recent work revolving around second screening has pointed out the difficulty many researchers face; a valid measurement of the phenomenon, and what constitutes second screening in terms of the degree and type of involvement are still matters of debate. Survey studies, experimental setting based studies, and “big,” trace data analysis have all highlighted measurement and effect inconsistencies. So far, the most daunting challenge is to ascertain and gather reliable data to quantify short and long period effects of second screening habits (Choi & Jung, 2016; Horning, 2017; Moe, Poell, & Van Dijck, 2016; Vaccari, Chadwick, & O’Loughlin, 2015; Van Cauwenberge, Schaap, & Van Roy, 2014; Wells et al., 2016).

Regardless of all the challenges scholars face, and will continue to face in the future, citizens today have before them a new avenue to collect information, relate to elites and political actors, interact with journalists, and get exposed to social and public influencers. This section seeks to shed more light on the effects of second screen use, while addressing some of the current limitations in the field. The section includes cutting-edge research from leading scholars across the world. Their insights reflect not only the complexity of the dual-screening phenomena, but also the potential for democratic engagement and subversive uses of new media technologies.

This special section kicks off with a study set in the context of the United Kingdom national political debates in 2015 (Chadwick, O'Loughlin, & Vaccari, 2017). The data collected and used in the study are novel at two levels. First, in a broader sense, these national-wide political debates are quite recent, as they have been held only since 2010. Little is known about the general effects political debates may have in the U.K. (Chadwick, 2010). Second, the study relies on very timely survey panel data methodological structure. This novel approach relies on data collected directly in tandem with the debates, thus adding much needed validity in terms of claims related to potential second screening effects in the aftermath of a national election. Accordingly, the first wave of the panel data was collected immediately after the political event, and the second, within the interval of one day right after the national UK election took place. The primary goal of the study was to determine the scope and level of influence second screen use may have in participatory and pro-democratic behaviors.

The study also highlights the most prominent motivations citizens have to engage in dual screen use during a political debate. For the most part, people sought further political information, shared information with others, or attempted to influence others with their messages. These findings are consistent with prior scholars who also found similar motivations in different western democracies as for why people tend to second screen while watching news events. All in all, people second screen to expand their knowledge about issues discussed or covered on television (or another screen), as well as to discuss those important issues with others in social media (Gil de Zúñiga et al., 2015; Shah, Hanna, Bucy, Wells, & Quevedo, 2015).

Building on this argument of political engagement, the piece by Lin and Chiang (2017) elaborates on the social factors that may drive political engagement online and offline in Taiwan. Relying on survey data from about 1,000 second screen users, and employing structural equation modeling tests, the paper finds that dual screening news content is a positive predictor of both online and offline political activities in Taiwan. Furthermore, they elaborate on the notion that online political engagement may also further explain the way citizens engage politically in a face to face setting. In other words, online participation will also mediate the effect of second screen use on offline political participation.

Also using a political participatory context as a baseline and fundamental aspect of their study, McGregor and Mourão (2017) showed that second screen uses may not always lead citizens to increased political contribution and involvement. Relying on U.S. national survey data, their study used stringent autoregressive methodology to show that

people who reported less favorable views of Donald Trump, and engaged in second screening during the last U.S. election campaign, participated less in politics.

The findings of McGregor and Mourão may, to some extent, be explained by the work by Hayat and Samuel-Azran (2017). In this study, and also relying on U.S. data, the authors examined the Twitter conversation patterns of those who engaged in past national elections. The authors show that the overall Twitter network generated in their methodology was visibly similar (homogeneous) in terms of the political views of those in the network. That is, second screeners tend to get exposed to networks that rather “exhibit homophily interaction.”

It may be then, that second screening is highlighting the role of social influences and self-curated networks in political outcomes. The final study included in this study by Barnidge, Gil de Zúñiga, and Diehl (2017) addresses this idea, though they took a slightly different approach. The authors sought to test whether second screening would have an effect on another indispensable benchmark of democracy, political persuasion and attitude formation (Mutz, Sniderman, & Brody, 1996). For a healthy democracy to function, people need to be informed (Delli Carpini & Keeter, 1997). The need for this information helps citizens contextualize current events, thus facilitating the political decision making in the future (McCombs & Shaw, 1972; McLeod & Detenber, 1999). Being influenced through social media while second screening, and the tendency to reformulate one’s political opinions based on information they come across on social media, may be driving attitude formation, because people are exposed to new information or opinions, discussion disagreement, social cues, and news all at the same time (Diehl, Weeks, & Gil de Zúñiga, 2016; Huckfeldt, Mendez, & Osborn, 2004; Weeks, Ardèvol-Abreu, & Gil de Zúñiga, 2016). With this in mind, the authors used a representative U.S. panel survey to highlight that a second screen use, particularly for news, drives political persuasion at a later time. In other words, people who dual screen in a political context, also tend to change their mind about political and public affairs more often than those who second screen less.

Dual Screen Use in Political Communication Across the World

The studies in this section offer a unique snapshot into second screening behaviors in a few countries. It is currently unknown how prominent second screening is beyond the Western world. The subsequent goal of this article is to provide an empirical snapshot of second screen news use across the world. With that goal in mind, and based on multi-country representative survey data, the article seeks to shed light on whether people in some countries engage in second screening for news and political content more than in others. Similarly, with these data the study seeks to provide initial answers on whether there are second screen use age differences in the twenty countries surveyed. Last, within the explorative nature of this piece, it is also of interest to advance initial cross-cultural data on the ways dual screen use may relate to political processes, and pro-democratic behaviors online and offline. Accordingly, the following research questions will be addressed:

- RQ₁: Do young citizens second screen or dual screen for news and public affairs more so than older adults?
- RQ₂: Are there differences between second screen or dual screen users (low versus high) and their level of political expression in social media?
- RQ₃: Are there differences between second screen or dual screen users (low versus high) and their level of offline political participation?
- RQ₄: Are there differences between second screen or dual screen users (low versus high) and their voting behavior in local and national elections?

Methods

Sample

The data employed in this study draw from the *Word Digital Influence Project*, a collaboration between a research group based at Massey University in New Zealand, and the Media Innovation Lab (MiLab) at the University of Vienna. A two-wave panel data was collected in 22 countries from the Americas, Asia, Europe, and South Africa (see [Tables 1, 2, and 3](#)). In order to achieve the most comparable and reliable data set among different countries with different languages, researchers relied on a large group of participating scholars from each country involved to perform the translation of all items. Afterwards, the surveys were translated employing either back-translation with a team approach (Behling & Law, 2000; Thato, Hanna, & Rodcumdee, 2005), or the committee approach (Brislin, 1980). Survey administration was performed by the MiLab at University of Vienna with the help of an online poll survey platform: Qualtrics. The data were gathered concurrently in all countries from September 14 to 24, 2015. In order to sample the subjects across all countries, the researchers partnered with Nielsen, a popular media polling company based in the United States, which curates a massive pool of potential respondents across 22 countries that encompasses more than 10 million individuals. From this pool, Nielsen generates the final sample in each country based on stratified quota sampling techniques to create samples whose demographics closely matched those reported by official census agencies (see Callegaro et al., 2014).

This study only includes data from 20 countries, since the data collected in South Africa, and India were representative only for Johannesburg and New Delhi, and accordingly, the author decided to exclude them from the analysis. The largest sample was collected in Ukraine ($n = 1,223$), and the smallest in Korea ($n = 943$); the overall mean sample size for all countries was also over a thousand cases ($M = 1,067$; $SD = 238$). Overall, the cooperation rate was relatively high, averaging 77% across the panel (AAPOR, 2016; CR3). Since Nielsen partners with companies that employ a combination of panel and probability-based sampling methods, the limitations of web-only survey designs are minimized (Bosnjak, Das, & Lynn, 2016). However, some parameters of the panel invites are unknown, and therefore traditional response rates are not calculated (AAPOR, 2016) (see [Tables 1, 2, and 3](#)).

Table 1
Demographic Breakdown by Age, Gender and Race for 22 Country Study versus Census Data

	Age Group						Gender			Race		
	18-24	25-34	35-44	45-64	65+		Female	Male	Asian	Black	White	
1. Argentina	15.2(17.3)	24(21.4)	20.8(17.6)	34.2(28.4)	5.8(15.3)		51.7(53.1)	48.3(46.9)	-	-	71.7	
2. Brazil	5.7(8.7)	29.4(15.7)	29.4(15.7)	20(13.5)	3.7(13)		49.8(51.4)	50.2(48.6)	1.7(.5)	12.6(7.9)	68.1(46.2)	
3. Chile	26.3(14.8)	30(21.1)	19.7(18.4)	20.7(32.1)	3.2(13.7)		51.3(51)	48.7(49)	-	-	-	
4. China	10.5(12.7)	31.5(14.9)	27.9(18.2)	27.2(24.3)	2.9(8.9)		44.4(48.8)	55.6(51.2)	-	-	-	
5. Estonia	11.1(9.7)	17.8(17.9)	15.1(17)	33(32.4)	22(23)		54.3(48.2)	50.6(45.7)	-	-	97.8(68.2)	
6. Germany	11(6.2)	26(15)	43.8(24.6)	8.3(5.1)	10.9(17)		53.9(51)	46.1(49)	-	-	-	
7. Indonesia	19.1(12.5)	36.9(24.3)	26.2(21)	13(24.2)	.6(4.8)		59.6(49.9)	38.9(50.1)	76.2(40.2)	-	-	
8. Italy	10.9(7.1)	21.9(11.5)	27.9(15.1)	34.4(28.7)	5(21.9)		54.8(51.5)	44.2(48.5)	-	-	-	
9. Japan	4.1(5.9)	13.4(13.9)	26.7(17.8)	45(32)	10.9(30)		41.6(51.3)	57.1(48.7)	99.3(98.6)	-	-	
10. Korea	16.7(11.5)	24.4(16.1)	24.3(19.6)	31.7(36.8)	2.8(15.9)		46.7(46.2)	53.3(53.8)	-	-	-	
11. N. Zealand	7.1(9.4)	13.2(16.6)	15.2(18.6)	36.7(35.5)	24(19.7)		56(52.1)	43.2(47.8)	7.8(11.6)	-	77(75.1)	
12. Philippines	17.7(9.2)	35.3(16.1)	25.9(12.4)	15.8(15.9)	1.3(4.8)		49.7(61.2)	39(50.2)	-	-	-	
13. Poland	13.9(10.7)	21.4(19.6)	22.6(18.1)	34.1(33)	8(18.6)		54(52.3)	46(47.7)	-	-	-	
14. Russia	18(13.6)	24.2(19.7)	26(16.6)	28.6(34.3)	2.5(15.6)		50.2(53.8)	48.4(46.2)	-	-	-	
15. Spain	11.7(7.4)	21.9(14.9)	26.4(16.9)	36.8(25.6)	2.9(17.3)		51.7(50.6)	46.5(49.3)	-	-	-	
16. Taiwan	15.4(15.5)	30.6(17.7)	30.6(18.7)	22.6(34.1)	1(13.9)		49.2(50.1)	50.8(49.9)	-	-	-	
17. Turkey												
18. UK	4.3(8.7)	12.8(17.7)	17.6(16.9)	42.7(33.4)	22.6(23)		54.1(51.4)	45.9(48.6)	3.1(6.9)	1.2(2.9)	91.9(87.6)	
19. Ukraine	13(7.8)	38.6(19.8)	26.6(17.5)	14.8(25.5)	1(19)		44(54.8)	54.9(45.1)	-	-	86.1(83)	
20. U.S.	8.4(9.9)	13.5(13.6)	14.8(12.8)	42.7(26.2)	20(15.5)		59.5(50.8)	40.5(49.2)	3.5(5)	5.8(12.6)	83.3(73.8)	

Note. Census data reported in parenthesis, based on official estimates. Dashes indicate demographics not directly comparable. See Table 3 for notes.

Table 2
Demographic Breakdown by Education, Homeownership, and Marital Status for 22 Country Study versus Census Data

	Education				Homeownership				Marital Status			
	High School or less	Some College	College Degree+	Graduate Degree+	Own	Rent	Married	Divorced	Single	Widowed		
1. Argentina	54(85)	13.1(9.4)	26.7(5.7)	—	—	—	53.2(52.8)	12.2(10.6)	32.4(28)	2.2(8.5)		
2. Brazil	52.2(39.4)	47.8(60.5)	—	—	—	—	—	—	—	—		
3. Chile	22.8(80.6)	44.2(12)	33(16.6)	—	62.1(80.6)	37.9(19.4)	44.7(44.3)	8.3(3.1)	46.3(47.2)	.7(5.4)		
4. China	9.3(15)	23(5.5)	58.7(3.7)	7.6(3)	88.9(85.4)	11.1(11.9)	76.2(71.3)	1.4(1.4)	21.8(21.6)	.6(5.7)		
5. Estonia	44.6(64)	16.5(9.4)	14.5(7.8)	24.2(17.2)	—	—	—	—	—	—		
6. Germany	60.9(85.3)	—	7.2(1.3)?	31.8(14.5)	44.1(41.3)	55.9(48.6)	54.5(54.8)	19.5(8.5)	21.4(28.2)	4.6(8.5)		
7. Indonesia	25.7(41.6)	13.1(29.2)	53.9(18.2)	4.7(10.9)	—	—	—	—	—	—		
8. Italy	52(49.7)	—	31.2(13.5)	—	79.3(72)	20.7(18)	56(48.4)	5.1(2.2)	37.5(41.9)	1.4(7.5)		
9. Japan	44.3(62.3)	14.4(16.4)	33.9(19.5)	7.4(1.8)	—	—	—	—	—	—		
10. Korea	31.8(56.5)	11.6(14.3)	56.6(29.3)	—	59.4(53.8)	40.6(46.2)	51.5(60.8)	2.5(4.2)	45(26.9)	—		
11. N. Zealand	33.5(38.2)	28.3(8.2)	24.4(12.1)	13.7(5.7)	—	—	—	—	—	—		
12. Philippines	5.5(7.1)	—	70.2(3.5)	—	66(61.6)	34(12.1)	50.3(45.3)	4.3(1.2)	43.2(43.5)	2.2(4.2)		
13. Poland	48.8(79.4)	15.4(7.6)	35.8(13)	—	80.5(83.5)	19.5(16.5)	67(57.7)	7.5(5)	22(27.8)	3.5(9.5)		
14. Russia	25.4(64)	10.6(4.2)	63.9(30.9)	3.5(1)	—	—	56.2(49.7)	6.3(8.3)	18.4(20.7)	—		
15. Spain	18.6(46)	44.1(22.1)	37(31.9)	—	77.7(79.7)	21.4(20.3)	62.4(54.6)	6.4(5.2)	29.6(32.4)	1.3(7.6)		
16. Taiwan	21.9(57)	18.2(12.2)	46.1(24.6)	13.8(6.3)	70.1(84)	29.9(16)	41.6(51.1)	4(7.9)	50.6(34.7)	.3(6.3)		
17. Turkey	—	—	—	—	—	—	—	—	—	—		
18. UK	30.2(29.3)	31.9(20.5)	38(27)	—	65.1(64.8)	35.2(34.8)	48.5(41.5)	11.6(6.6)	31.7(46.4)	3.7(5.2)		
19. Ukraine	13.7(56.5)	—	31(20.7)	61.7(14.6)	—	—	—	—	—	—		
20. U.S.	22.8(40.8)	33.5(29.1)	28.3(18.7)	15.4(11.4)	67.9(63.1)	32.1(36.9)	50.9(47.7)	12.9(11)	33.3(27)	(5.9)5.9		

Note. Census data reported in parenthesis, based on official estimates. Dashes indicate demographics not directly comparable. See Table 3 for notes.

Table 3
Footnotes on Demographic Breakdown of Country Studies

1. Argentina	2014 World Values Survey. Other Race = Mestizo. Yearly income reported versus Pew 2013: \$19,999 or less 73.3 (31.7); 20,000–49,000 21.3(40.3); 50,000–99,000 4.8(19); 100,000 or more .6(9).
2. Brazil	2013 Brazilian Census data. Numbers for age groups 15–19, 20–29, 30–39, 40–49, 50–59, and 60+. *Census numbers for Brown/Indigenous (45.3%) categories were not recorded in the first wave, and were instead asked in the study as Latino (7.8%); Other = American and Pacific Islander. Language in the census differs from the study on race and education items: High School = High School or less, Some College = High School +. The Brazilian Census the information available is related to the level that people are studying at the moment. Yearly income categories reported as: less than R\$50,000 52.1(79.6); R\$50,000–100,000 16.3(6.2); R\$100,000+ 13.2(3.1).
3. Chile	2015 population estimates based on INE data.
4. China	2010 Chinese Census made by China's Office for National Statistics.
5. Estonia	2015 population estimates for age and gender; 2011 for ethnicity and citizenship, 2014 for education levels. White = Estonian (official estimates report Russian as 26.1% versus 1% in the study).
6. Germany	2014 Statista estimates. Age categories are 18–24, 25–39, 40–59, 60–64, and 65+.
7. Indonesia	2010 BPS estimates. Asian = Java
8. Italy	2015 ISTAT estimates.
9. Japan	2010–2014 Japanese Census Estimates. Asian = Japanese; Other = Korean, Chinese, or Other. Yearly income categories reported as: 1.5 million yen or less 13.3(10.6); 1.5–3.5 million 28.5(24.3); 3.5–7 million 31.7(38); 7–11 million 18(17.8); over 11 million 8.3(9.3).
10. Korea	2015 population statistics from 2015 resident registration at the Ministry of Government Administration and Home Affairs; 2012 Korea Housing Survey; and 2010 census.

11. New Zealand 2013 NZ census. In age groups 18–24 = 20–24. White = European; Other = Maori 4.8(12) and Pacific 1.5(5.7). Yearly income categories reported as: \$50,000 or less 41.7(32.9); 50,001–150,000 34.7(40.97); over 150,000 2.8(10.1).
 12. Philippines 2015 population estimates. In age groups 18–24 = 20–24.
 13. Poland Population estimates for 2011 and 2014 by GUS or Eurostat 2012.
 14. Russia 2010 census estimates.
 15. Spain 2011 Population Census made by the Spanish Statistical Office (INE); 2011 European Union Statistics in Income and Living Conditions (EU-SILC); 2011 Labor Force Survey (EPA).
2014 Department of Statistics, Ministry of Interior.
 16. Taiwan 2014 UK Census (ONS) estimates for age, homeownership and marital status, otherwise 2011 Census data is used.
 17. Turkey 2001 Official census data. White = Ukrainian; Russian = 10.9(17.3).
 18. UK 2014 U.S. Census American Community Survey (1-Year Estimates); Census asks about Hispanic (16.9%) ethnicity in a separate question, the study offered Latino (5.1%) as an exclusive option in a single race item.
 19. Ukraine
 20. U.S.
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Measures

Second Screening. The main construct explored in this study is second screening for news and political content, which draws from a previous measurement elaborated by Gil de Zúñiga and colleagues (2015) on second screening for these purposes. The construct taps on individuals' frequency to dual screen while watching TV programs about "political speeches or debates," "news and public affairs," and information about "election coverage." Overall, the index performed quite reliably across all countries (3 items averaged scale, Cronbach's $\alpha = .92$, $M = 3.14$, $SD = 1.75$, with the lowest reliability test obtained in Brazil, Cronbach's $\alpha = .83$; and the highest in United Kingdom, Cronbach's $\alpha = .95$).

Social Media Political Expression. The level of political expression with the social media sphere was captured by including several different ways in which citizens may express their opinions about political and public affair issues in this environment (see Gil de Zúñiga et al., 2014). Accordingly, the index included these items: "posting personal experiences related to politics or campaigning," "friending a political advocate or politician," "posting or sharing thoughts about politics," "posting or sharing photos, videos, or audio files about politics," and "forwarding someone else's political commentary to other people" (5 items, with a twenty-country Cronbach's $\alpha = .93$, $M = 2.72$, $SD = 1.56$. The lowest Cronbach's $\alpha = .89$ was found in Argentina, Chile, and Estonia; and the countries with highest Cronbach's $\alpha = .95$ were China, Japan, Korea, Taiwan, and the United Kingdom).

Offline Political Participation. This construct makes the distinction between several behaviors that tap the many ways in which citizens can influence the government and their policies offline (Verba, Schlozman, & Brady, 1995). Offline political behaviors are distinct from online (Gil de Zúñiga, Barnidge, & Scherman, 2016), and casting a vote may have its unique features and characteristics (e.g., Blais, 2000; Campbell, 2006). Thus, building on prior work measuring this behavior (McLeod, Scheufele, & Moy, 1999; Verba et al., 1995), the study asked respondents how frequently they engaged in the following activities in the past three months: "attended or participated in a political rally, demonstration, protest, or march," "donated money to a political campaign or political cause," and "participated in groups that took any local action for social and political reform" (3 items, with a twenty-country Cronbach's $\alpha = .92$, $M = 1.87$, $SD = 1.37$. The lowest Cronbach's $\alpha = .84$ was found in Argentina; and the country with highest Cronbach's $\alpha = .96$ was Japan).

Voting. The last construct used in this study registered people's levels of both local and national political involvement in electoral processes. To that end, an index was generated tapping people's frequency to cast their vote in "local" and "national" elections (2 items, with a twenty-country Spearman-Brown Coefficient = .93, $M = 5.38$, $SD = 2.09$. The lowest Spearman-Brown Coefficient = .89 was found in China

and New Zealand; and the countries yielding the most robust Spearman-Brown Coefficient = .98 were Italy, Japan, and Philippines).

Analysis

The study first presents descriptive statistics about dual screening in twenty countries. Next, the study tests whether young people tend to second screen more than their adult counterparts in all these countries (Young = 18–35; Older = 36 and above with an overall Median = 39, SD = 14.57). A set of t-test were employed. Given that for most of the countries a Leven's test for homoscedasticity yielded statistically significant results, when necessary, all tests adjusted the degrees of freedom relying on the Welch-Satterthwaite method (Willink, 2007). Finally the goal of the article was to also compare the differences between a group of more intense second screen users, and the group reporting a more moderate use.¹ As above, country differences were tested employing T-test with the same method. Additionally, given the multiple T-test used in these calculations, all calculations were bootstrapped with 1,000 iterations (Mooney, Duval, & Duvall, 1993).

Results

This article sought to present the first global and explorative view on the use of multiple screens to consume and discuss political content. The first table in the study shows the different items used in the construct of second screening, with three different items, and the overall construct performance as a whole and across all twenty societies (Table 4 and Figure 1). Descriptive data from the study reveal that across these twenty countries three quarters (75.4%) of the subjects in the study dual screen while watching TV news or political content. There are some notable differences between countries. A large chunk of the population in Turkey, China, and Brazil engage in second screening behaviors frequently (95.6%, 93.6%, and 89.5%, respectively; Figure 1). On the other hand, people in Germany, United Kingdom, and United States tend to second screen much less (52.7%, 56.1%, and 54.5%, respectively).²

Similarly, young people consistently second screen for news and political content more often than older adults, with three exceptions. In the entire sample, young people ($M = 3.49$, $SD = 1.69$) correspondingly dual screen more than older adults ($M = 2.86$, $SD = 1.74$; t -value = 26.57, $df = 19907$, $p < .001$). These statistically significant differences remain for all countries (see Table 5 and Figure 2) excluding Japan (young, $M = 3.39$, $SD = 1.67$; older, $M = 3.50$, $SD = 1.57$; t -value = $-.91$, $df = 939$, $p = .363$), Turkey (young, $M = 4.12$, $SD = 1.44$; older, $M = 4.13$, $SD = 1.53$; t -value = $-.17$, $df = 917$, $p = .868$), and Ukraine (young, $M = 2.80$, $SD = 1.62$; older, $M = 2.75$, $SD = 1.55$; t -value = $.50$, $df = 1175$, $p = .618$) where young and older adults tend to second screen about the same (see Table 2, Figure 2). These results provide empirical evidence to address the RQ₁.

Table 4
Second Screening Descriptive Statistics and Scale Reliability in 20 Countries

Country	How often do you second screen during the following types of television programs?												Sample N		
	Political speeches or debates			While watching the news			During election coverage			Scale				Reliability index	Second screen users %
	M	SD		M	SD		M	SD		Grand M	SD	Cronbach's α			
ALL	3.00	1.88		3.27	1.85		3.16	1.93		3.14	1.75	.92	75.4	21629	
Argentina	3.01	2.13		3.15	1.90		3.26	2.19		3.14	1.85	.89	72.2	1116	
Brazil	3.41	1.98		4.25	1.85		3.73	1.95		3.79+	1.66	.83	89.5	1086	
Chile	3.54	2.12		3.72	1.86		3.72	2.16		3.66+	1.85	.88	82.8	964	
China	3.84	1.54		4.07	1.50		3.85	1.59		3.92+	1.42	.91	93.6	1004	
Estonia	2.84	1.66		2.80	1.85		2.91	1.85		2.85-	1.62	.89	75.3	1168	
Germany	2.25	1.72		2.46	1.80		2.36	1.81		2.36-	1.67	.93	52.7	1053	
Indonesia	3.25	1.72		3.81	1.73		3.58	1.76		3.54+	1.57	.89	86.9	1080	
Italy	3.04	1.87		3.05	1.76		3.06	1.92		3.06-	1.72	.93	71.2	1041	
Japan	3.27	1.77		3.67	1.68		3.52	1.82		3.48+	1.59	.90	87.3	975	
Korea	2.93	1.73		3.38	1.64		3.17	1.77		3.16	1.45	.89	84.1	943	
New Zealand	2.28	1.81		2.50	1.68		2.45	1.87		2.41-	1.66	.92	58.4	1157	
Philippines	3.33	1.64		3.65	1.64		3.49	1.72		3.49+	1.54	.91	88.0	1064	
Poland	2.50	1.70		2.77	1.77		2.64	1.75		2.63-	1.64	.94	63.6	1060	
Russia	2.44	1.68		2.85	1.83		2.44	1.68		2.57-	1.62	.94	64.9	1145	
Spain	3.10	1.88		3.33	1.84		3.39	1.96		3.27+	1.75	.92	77.2	1019	
Taiwan	3.47	1.84		3.57	1.67		3.55	1.83		3.52+	1.65	.92	85.4	1008	
Turkey	3.94	1.67		4.18	1.56		4.26	1.74		4.12+	1.47	.86	95.6	961	
UK	2.44	1.86		2.60	1.85		2.59	1.96		2.55-	1.67	.95	54.5	1064	
Ukraine	2.61	1.68		3.07	1.75		2.72	1.74		2.79-	1.59	.92	73.5	1223	
United States	2.39	1.85		2.52	1.80		2.54	1.91		2.48-	1.75	.94	56.1	1161	

Note. All items measured on 7-point scales where 1 = *strongly disagree* and 7 = *strongly agree*. + Country M difference with respect all countries grand M is positive for Second Screening scale at $p < .01$ or better. - Country M difference with respect all countries grand M is negative for Second Screening scale at $p < .01$ or better.

Figure 1
Percentage of Second Screen Users by Country

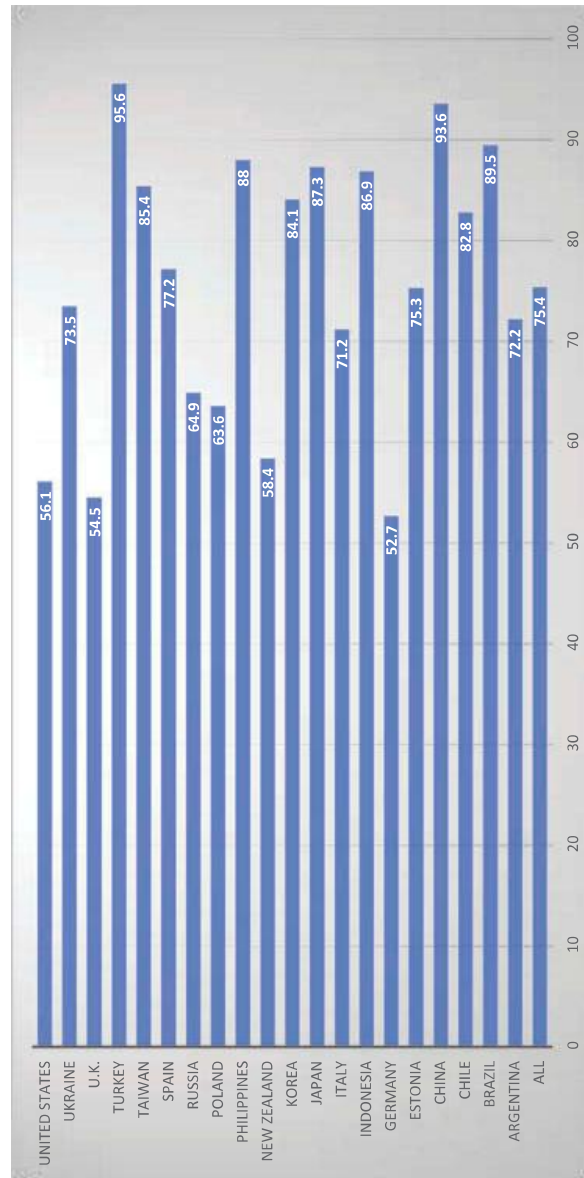
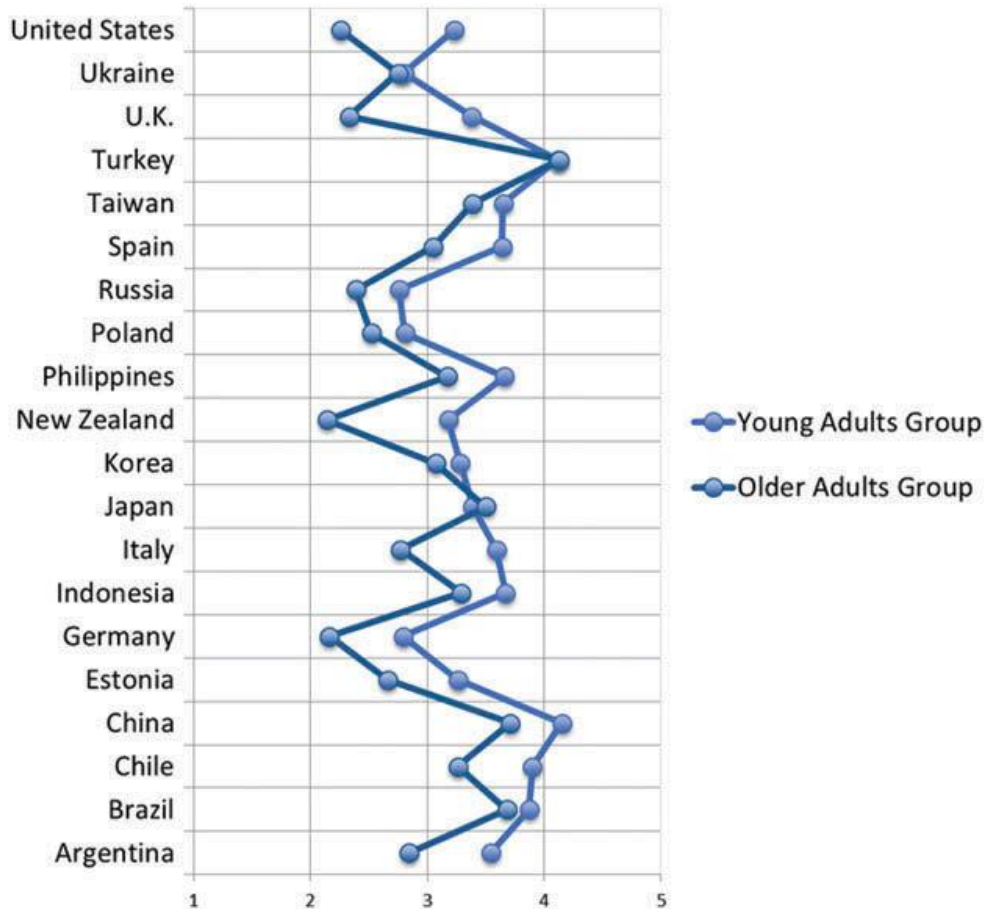


Table 5
Second Screen Use Comparison Between Young and Older Adults in 20 Countries All t-test statistical analysis have been adjusted with Bonferroni normalization and bootstrapped (5,000 times) for robustness.

Country	Young adults group		Older adults group		Levene's Test for Homoscedasticity		Comparison T-statistics			Group samples N
	M	SD	M	SD	F	p-value	t-value	df	p-value	
ALL	3.49	1.69	2.86	1.74	45.12	.001	26.57	19907	.001	9131/12234
Argentina	3.54	1.82	2.84	1.81	1.64	.200	6.21	1099	.001	453/648
Brazil	3.87	1.64	3.68	1.69	.61	.434	1.85	1033	.065	561/464
Chile	3.90	1.78	3.26	1.88	4.45	.035	5.22	767.1	.001	550/372
China	4.15	1.29	3.71	1.49	21.41	.001	4.99	988.9	.001	463/528
Estonia	3.26	1.72	2.66	1.53	9.53	.002	5.63	615.2	.001	354/782
Germany	2.79	1.73	2.16	1.60	10.32	.001	5.54	577.9	.001	321/704
Indonesia	3.67	1.51	3.29	1.66	8.75	.003	3.55	665.9	.001	686/358
Italy	3.59	1.64	2.77	1.71	9.37	.002	7.51	759.7	.001	359/661
Japan	3.39	1.67	3.50	1.57	3.03	.082	-.91	939	.363	188/753
Korea	3.28	1.54	3.07	1.56	.10	.755	2.07	923	.038	420/505
New Zealand	3.18	1.78	2.14	1.52	25.34	.001	8.93	440.3	.001	289/852
Philippines	3.66	1.52	3.17	1.56	3.12	.078	4.92	1001	.001	616/387
Poland	2.81	1.66	2.52	1.63	1.15	.284	2.68	1031	.007	395/638
Russia	2.76	1.61	2.39	1.60	.82	.365	3.86	1120	.001	509/613
Spain	3.64	1.65	3.05	1.77	7.84	.005	5.20	805.2	.001	366/625
Taiwan	3.65	1.65	3.39	1.65	.34	.560	2.48	977	.013	484/495
Turkey	4.12	1.44	4.13	1.53	2.23	.135	-.17	917	.868	561/358
UK	3.38	1.86	2.33	1.72	3.84	.051	7.59	1036	.001	200/838
Ukraine	2.80	1.62	2.75	1.55	2.19	.139	.50	1175	.618	712/465
United States	3.23	1.88	2.26	1.65	13.88	.001	7.57	393.6	.001	264/875

Note. Where Levene's test for equality of variances yielded unequal variance in the groups, the assumption violation was corrected adjusting the degrees of freedom using the Welch-Satterthwaite method. Also, t-test statistical analysis have been bootstrapped (1,000 times).

Figure 2
Second Screen Means by Groups (Young/Older)



The next set of research questions (RQ₂ and RQ₃) attempted to address a descriptive relationship between dual screen users, political expression levels in social media, and offline political behavior activities. More specifically, these questions revolved around the notion of whether more intense second screen users will tend to engage more in these activities than those who presented a more moderate level of dual screen activity. Results indicate that for both activities, in all countries, second screen use matters. The groups that reported higher levels of dual screen use also reported higher levels of political expression in social media (for the entire sample high second screen use: M = 4.40, SD = 1.59; low second screen use: M = 2.05, SD = 1.19; t = 69.67, df = 19376.5, p < .001) and offline political participation (for all countries high second screen use: M = 2.38, SD = 1.61; low second screen use: M = 1.37, SD = .81; t = 57.76, df = 15356.4, p < .001) (Table 6 and Table 7, and also Figure 3 and Figure 4 for complete individual country details).

Table 6
Social Media Political Expression Comparison Between Low and High Second Screen Users in 20 Countries

Country	High second screen use		Low second screen use		Levene's Test for Homoscedasticity		Comparison T-statistics			Group samples N
	M	SD	M	SD	F	p-value	t-value	df	p-value	
ALL	4.40	1.59	2.05	1.19	1319.37	.001	69.67	19376.5	.001	10832/10450
Argentina	3.52	1.63	2.65	1.38	28.35	.001	9.50	1039.4	.001	453/648
Brazil	4.02	1.54	2.83	1.37	7.81	.005	12.83	825.19	.001	668/364
Chile	3.52	1.52	2.45	1.29	17.62	.001	11.48	882.73	.001	549/375
China	3.73	1.50	2.27	1.18	23.66	.001	16.12	653.67	.001	694/281
Estonia	2.41	1.25	1.82	.90	54.21	.001	8.62	769.81	.001	458/676
Germany	2.91	1.59	1.50	.91	267.63	.001	14.57	391.29	.001	305/717
Indonesia	3.89	1.43	2.46	1.23	7.23	.007	17.12	952.62	.001	636/406
Italy	3.69	1.53	2.37	1.35	6.23	.013	14.59	994.59	.001	504/510
Japan	2.01	1.36	1.38	.79	170.23	.001	8.91	902.87	.001	547/397
Korea	2.77	1.54	1.54	.88	250.90	.001	14.85	723.14	.001	456/456
New Zealand	2.80	1.41	1.70	.95	130.36	.001	13.13	463.47	.001	334/802
Philippines	3.82	1.37	2.46	1.16	9.72	.002	16.86	942.96	.001	594/401
Poland	3.46	1.46	2.21	1.28	13.65	.001	13.81	709.56	.001	377/643
Russia	3.63	1.28	2.18	1.20	8.53	.004	17.49	707.29	.001	390/717
Spain	3.65	1.49	2.41	1.30	8.01	.005	14.03	987.68	.001	513/481
Taiwan	2.96	1.43	2.00	1.05	63.81	.001	12.07	970.89	.001	563/410
Turkey	3.65	1.54	2.12	1.14	35.23	.001	15.96	512.88	.001	688/226
UK	2.83	1.71	1.52	.92	360.93	.001	13.64	479.78	.001	365/670
Ukraine	3.51	1.35	2.24	1.21	7.90	.005	16.63	938.67	.001	476/709
United States	3.18	1.59	1.82	1.07	118.84	.001	14.74	522.78	.001	363/768

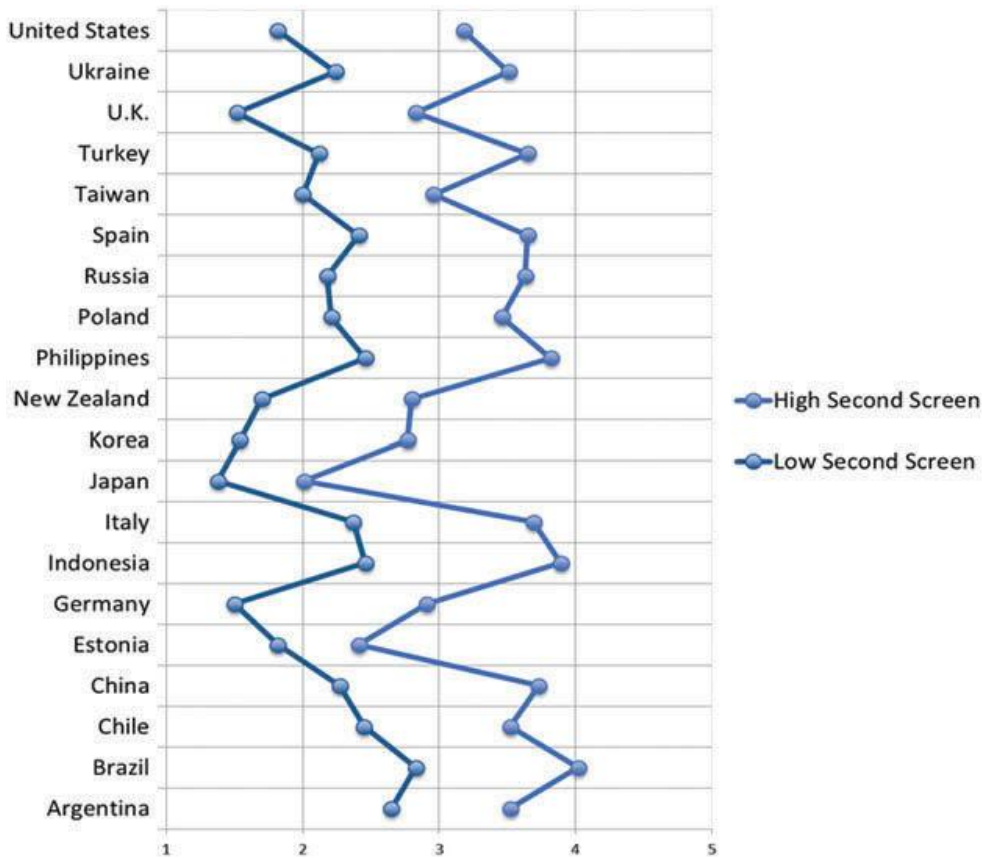
Note. Where Levene's test for equality of variances yielded unequal variance in the groups, the assumption violation was corrected adjusting the degrees of freedom using the Welch-Satterthwaite method. Also, t-test statistical analysis have been bootstrapped (1,000 times).

Table 7
Political Participation Offline Comparison between Low and High Second Screen Users in 20 Countries

Country	High second screen use		Low second screen use		Levene's Test for Homoscedasticity		Comparison T-statistics			Group Samples N
	M	SD	M	SD	F	p-value	t-value	df	p-value	
ALL	2.38	1.61	1.37	.81	7915.86	.001	57.76	15356.4	.001	10505/10877
Argentina	2.25	1.54	1.66	1.02	132.18	.001	7.59	916.54	.001	535/574
Brazil	2.51	1.70	1.43	.89	299.09	.001	13.54	1039.6	.001	679/363
Chile	2.32	1.54	1.37	.78	309.47	.001	12.44	870.99	.001	556/376
China	2.81	1.60	1.61	.96	167.93	.001	14.37	840.94	.001	700/281
Estonia	1.47	.95	1.20	.54	102.04	.001	5.33	664.06	.001	461/677
Germany	2.46	1.60	1.35	.80	435.57	.001	11.49	372.71	.001	307/721
Indonesia	2.80	1.64	1.45	.89	320.81	.001	17.11	1025.8	.001	643/402
Italy	2.53	1.63	1.41	.88	431.52	.001	13.64	770.88	.001	503/512
Japan	1.43	1.04	1.15	.54	101.05	.001	5.54	858.13	.001	545/396
Korea	1.93	1.42	1.18	.59	384.77	.001	10.46	598.39	.001	452/464
New Zealand	1.82	1.30	1.25	.63	235.54	.001	7.75	391.32	.001	328/807
Philippines	2.47	1.61	1.42	.81	378.12	.001	13.57	941.61	.001	601/406
Poland	2.65	1.56	1.53	.94	286.15	.001	12.80	546.48	.001	381/646
Russia	2.18	1.47	1.30	.75	339.42	.001	11.13	510.94	.001	397/725
Spain	2.55	1.58	1.60	.96	256.74	.001	11.44	850.19	.001	512/485
Taiwan	2.23	1.44	1.49	.91	169.44	.001	9.86	957.70	.001	567/408
Turkey	2.75	1.63	1.54	1.01	141.24	.001	13.16	619.77	.001	692/226
UK	2.02	1.47	1.22	.64	434.28	.001	9.89	439.87	.001	364/668
Ukraine	2.24	1.42	1.31	.71	469.16	.001	13.20	637.28	.001	478/716
United States	2.14	1.51	1.32	.75	328.21	.001	9.85	452.63	.001	366/773

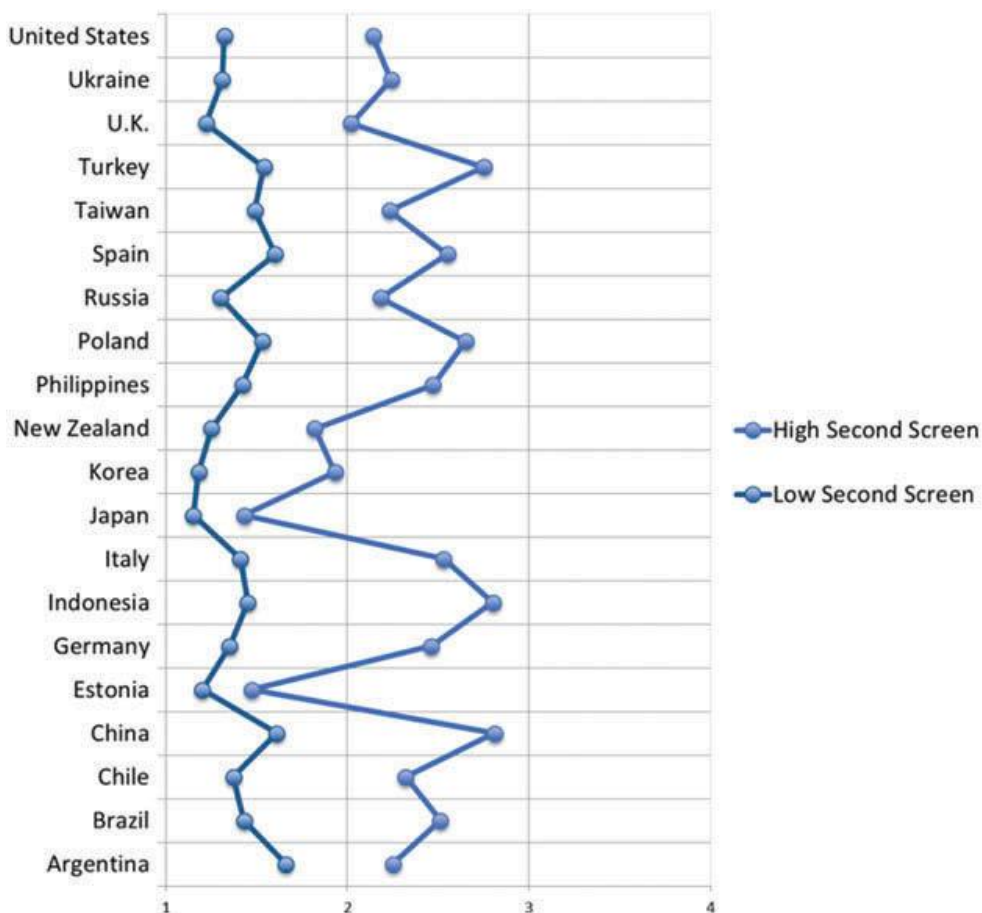
Note. Where Levene's test for equality of variances yielded unequal variance in the groups, the assumption violation was corrected adjusting the degrees of freedom using the Welch-Satterthwaite method. Also, t-test statistical analysis have been bootstrapped (1,000 times).

Figure 3
Social Media Political Expression by SS Groups (High/Low)



The last research question (RQ₄) dealt with whether there were differences in people's voting behaviors in local and national elections, considering their second screen habits. Here the data are less conclusive. In the overall sample, as well as in ten out of the twenty countries, there is no statistical significant result whatsoever in people's voting mean difference between those who are high second screen users, and those who do not report engaging in dual screening habits (for the entire sample high second screen use: $M = 5.18$, $SD = 1.95$; low second screen use: $M = 5.19$, $SD = 2.19$; $t = -.066$, $df = 21142.8$, $p = .94$). For six countries, China, Indonesia, Japan, Russia, Taiwan, and Ukraine, high dual screen levels yielded higher voting means. In other words, in these countries the group of people who reported higher levels of second screen use, also reported casting their vote in local and national elections more frequently (Table 8 and Figure 5). On the other hand, in Italy, New Zealand, Spain, and United Kingdom, people who tend to vote more frequently also tend to dual screen for news and political content less frequently (Table 8 and Figure 5).

Figure 4
Political Participation Offline by SS Groups (High/Low)



Discussion

Dual screen use for news is an interactive media behavior that is here to stay, with more and more people second screening within a political context while watching live content on TV in each election cycle (Pew, 2012). Political and informational dual screening behavior is a phenomenon that proliferated under the umbrella of today's multi-platform, multi-device, multi-tasking, and pervasive digital media environment. The present study introduced five exceptional, yet diverse pieces that will help scholars better understand and contextualize second screening as an additional use of social media sphere in the political and social realms.

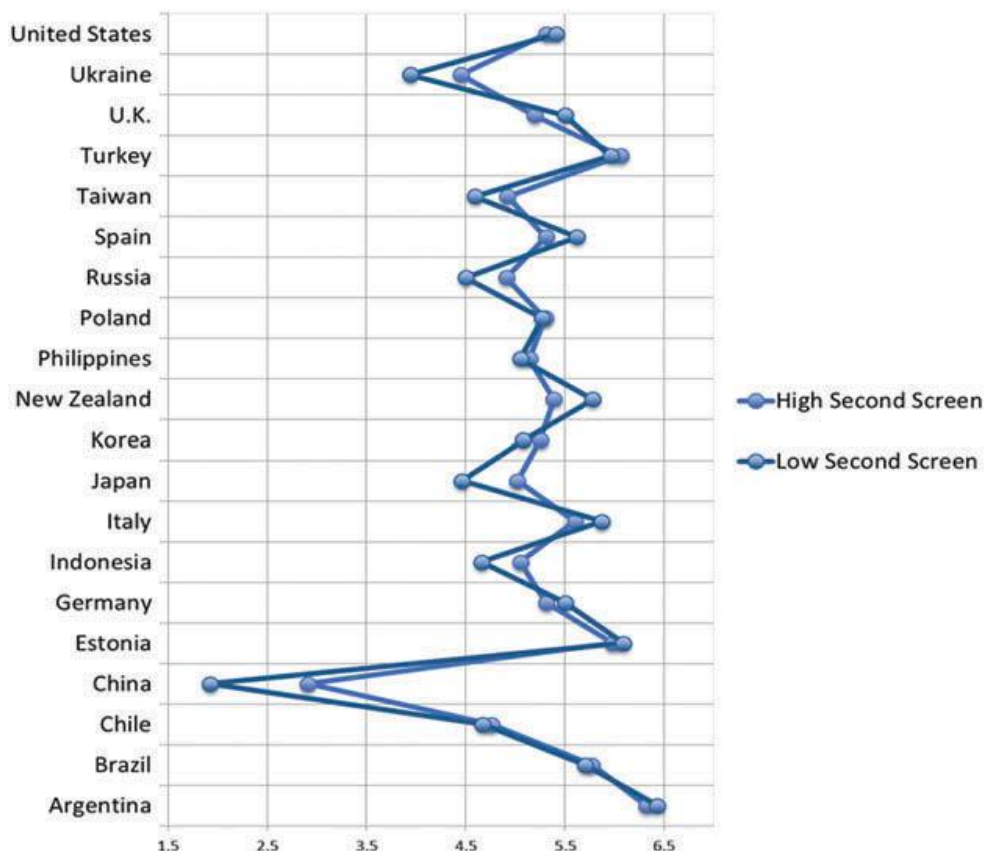
Although research in this area is clearly in its infancy, these studies as a whole depict new ways in which more flexible and liquid communicative behaviors will shape the political public sphere for years to come. From being informed to discussing politics; from

Table 8
Voting Comparison Between Low and High Second Screen Users in 20 Countries

Country	High second screen use		Low second screen use		Levene's Test for Homoscedasticity		Comparison T-statistics			Group Samples N
	M	SD	M	SD	F	p-value	t-value	df	p-value	
ALL	5.18	1.95	5.19	2.19	305.81	.001	-0.66	21142.8	.94	10433/10849
Argentina	6.32	1.35	6.43	1.31	3.45	.064	-1.30	1094	.19	529/567
Brazil	5.77	1.69	5.70	1.91	4.74	.03	.54	671.52	.59	673/363
Chile	4.76	2.17	4.67	2.47	27.92	.001	.566	730.88	.57	550/374
China	2.91	1.55	1.92	1.13	79.18	.001	11.12	700.63	.001	700/280
Estonia	5.98	1.67	6.09	1.71	.15	.703	-1.03	1136	.30	458/680
Germany	5.31	1.91	5.50	2.11	2.65	.104	-1.33	1019	.18	304/717
Indonesia	5.05	1.61	4.66	2.03	53.49	.001	3.26	708.58	.001	638/401
Italy	5.60	1.64	5.87	1.89	1.93	.165	-2.37	1009	.018	498/513
Japan	5.02	2.13	4.46	2.47	36.67	.001	3.59	770.13	.001	537/394
Korea	5.25	1.93	5.08	2.19	12.22	.001	1.21	901.05	.226	454/460
New Zealand	5.39	1.98	5.78	1.87	5.50	.019	-2.98	569.31	.001	326/803
Philippines	5.14	1.87	5.05	2.12	16.88	.001	.721	779.71	.471	598/400
Poland	5.30	1.65	5.27	1.94	13.98	.001	.228	903.37	.819	382/649
Russia	4.91	1.85	4.50	2.10	18.05	.001	3.34	887.39	.001	390/721
Spain	5.31	1.84	5.62	1.95	.78	.378	-2.58	986	.01	506/482
Taiwan	4.92	1.89	4.59	2.21	29.53	.001	2.44	786.50	.01	567/406
Turkey	6.06	1.46	5.96	1.77	9.58	.001	.79	33.84	.433	679/225
UK	5.19	2.10	5.50	2.17	.33	.567	-2.21	1037	.027	363/676
Ukraine	4.45	1.99	3.94	2.31	33.00	.001	4.13	1124.6	.001	481/717
United States	5.31	1.95	5.41	2.15	5.97	.015	-8.5	790.18	.397	368/768

Note. Where Levene's test for equality of variances yielded unequal variance in the groups, the assumption violation was corrected adjusting the degrees of freedom using the Welch-Satterthwaite method. Also, t-test statistical analysis have been bootstrapped (1,000 times).

Figure 5
Voting by SS Groups (High/Low)



being politically persuaded to participating in political activities, second screen use effortlessly complements citizens' information and discussion habits. In doing so, it mediates other political behaviors, becoming an influential pro-democratic tool (sometimes, although not always).

Additionally, this piece also sought to shed a more broad, explorative empirical light on the ways in which people use different “screens” to relate to news and political information across twenty countries. Drawing on a large scale multi-country data collection, the study present us with some answers, just as it opens many other questions for future research. The large survey helps answer the following questions: Who tends to dual screen more, young or older citizens? Are there countries that seem to reveal higher levels of second screening behavior for news and public affairs? Are there political behavior differences between those who tend to dual screen more intensively and those who reflect a more moderate use?

Results show that from the pool of countries included in the study, people in Turkey, China, and Brazil seem to embrace second screening as an additional information and communication reinforcement mechanism. For these countries, second screen use remains very high, in the vicinity of 90%. In contrast to these countries, results indicate that people do not tend to second screen as much in Germany, United Kingdom, and the United States, with levels around 50%. One potential explanation may be that for the former set of countries, second screening becomes a more essential informational tool as they might not solely rely on a precarious, and less trustworthy, journalistic media. In contrast, in Germany, the United States, and the UK, the media journalistic market is more established, and freedom of the press might be preserved more diligently (Reporters without Borders, 2016).

This “information accuracy” motivation may also be visible through a different and complementary angle. For all countries, young people tend to engage in second screening more than older adults, lending support to the idea that millennials may have a more natural relationship with technology and the informational possibilities it may bring up attached to it. However, this age differential effect is not to be found in only three countries (two of them being Brazil and Turkey). It would make sense that if the majority of the population is dual screening in these two countries due to the information accuracy need, generational dual screen use gaps may be mitigated (for other discussions on news and age gap differential effects, see Johnson, Hays, & Hayes, 1998; Sotirovic & McLeod, 2004).

Other findings of the study highlight how second screening matters for political behaviors beyond information purposes. In all twenty countries, people who tend to engage more in dual screen use (high second screen users’ group) also tend to report higher levels of political expression in social media. Consistently across many societies, while dual screening, citizens tend to follow-up with the news and political content they are watching on TV, which seamlessly enables them to post their thoughts about those issues in social media, or enables them to discuss those public affair issues concurrently. As the findings of this study highlight, intensive dual screen use also relates to higher levels of participation in offline political activities such as attending political rallies, marches, or protests, or donating money to political campaigns, etc.

However, this trend is not consistent with voting behaviors. With respect voting, in some countries, differences in second screening conduct are not relevant at all (for half of the pooled countries: Argentina, Brazil, Chile, Estonia, Germany, Korea, Philippines, Poland, Turkey, and United States). In some countries, the high second screening group would also tend to vote more frequently in local and national elections (China, Indonesia, Japan, Russia, Taiwan, and Ukraine). Finally, for some countries, those who report second screening less actually cast their votes more frequently (i.e., Italy, New Zealand, Spain, and United Kingdom). Thus, there is no clear pattern of second screening habits and voting behavior.

In any case, for those countries where second screen use may not be associated with voting behavior in a direct form, it may do so via the reinvigorated association with social media political expression and other forms of offline political engagement. That is, second screen use may directly affect the way in which people express themselves politically, and engage in political activities, and these two may, in turn

be associated with casting votes in local and national elections (for similar mediating effects see Gil de Zúñiga et al., 2014). By all means, this theoretical explanation serves as a future research question that needs to be empirically and fully addressed.

This study, in conjunction with the other five different studies of this special section, depicts a broad and useful picture of how dual screening is shaping the political realm across the world. Second screening shapes the way non-elites relate more closely to journalist, and political figures and entities (Chadwick et al., 2017), and contributes to fostering a discursive public sphere with space open to political persuasion, perhaps because people get exposed to newfangled information and ideas (Barnidge et al., 2017). Second screening also generally helps people further engage in the political process in many different countries (Gil de Zúñiga, 2017; Lin & Chiang, 2017), but not under all given conditions. For instance, in the context of the past contentious U.S. political campaign, when people held negative views about Trump, second screening during news made people detach from this process (McGregor & Mourão, 2017). Perhaps, some of this effect may be explained in the light of the Hayat and Samuel-Azran study (2017), for second screen users tend to rely more on homogenous information, further fueling the notion of Twitter echo-chambers.

All in all, this study and the rest of the dual screen use articles included in this special section, helps readers better understand and contextualize the effects of second screening politics in the social media sphere. Yet, research in this area is barely beginning, presenting scholars with a thrilling and exciting new area of inquiry, but also posing a challenging and puzzling avenue for future research. This section serves as one of the first steps in that direction.

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Notes

1. The twenty-country grand mean for second screening was used to compute two groups ($M = 3.18$, $SD = 1.75$). Those below the mean were selected for the *Low* use group (49.8%), and those above the mean were computed as the *High* (48.3%).
2. A Chi square test indicated the difference between the percentages from countries with low and high use was statistically significant at $p < .001$

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