

Social Media and Political Communication

A survey of Twitter users during the 2013 Italian general election

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1. Introduction

Social media have become increasingly relevant in election campaigns, as both politicians and citizens have integrated them into their communication toolkits. However, little is known about which types of citizens employ social media to discuss politics and stay informed about current affairs and how they integrate the messages and social connections they encounter through these online networks with their offline repertoires of political action. In this article, we address these issues by investigating Italians who discussed politics on Twitter during the 2013 general election campaign.

Twitter is a micro-blogging service that allows users to post short messages of up to 140 characters. Users can sign up to «follow» other users, but can also search messages by keywords. Italian Twitter users grew massively between 2010 and 2012, as total users per month went from 1.4 million in December 2010 to 3.3 million in October 2012¹. Although Twitter is still only a niche channel compared with television and Facebook (the most popular

We acknowledge the support of the Italian Ministry of Education «Future in Research 2012» initiative (project code RBFR12BKZH), Dean Thomas Carew and the NYU Faculty of Arts and Science Research Investment Fund, and the United States National Science Foundation (Award #1248055). This article is the product of a collaboration between the research projects «Building Inclusive Societies and a Global Europe Online» (<http://www.webpoleu.net>) at the University of Bologna and «Social Media and Political Participation» (<http://smapp.nyu.edu/>) at New York University. In accordance with Italian academic conventions, we specify that Cristian Vaccari wrote the paragraphs titled «Data», «Research Questions and Methods» and «Findings», Augusto Valeriani wrote the paragraph titled «Literature Review», and all the authors collaborated in writing the paragraphs titled «Introduction» and «Conclusion». We would like to thank Andrew Chadwick, Luigi Ceccarini, and the anonymous reviewers for their useful comments.

¹ Available at <http://vincos.it/osservatorio-facebook/> (accessed 2 June 2013).

social network in Italy, with 23.2 million users), it is becoming an important part of the contemporary Italian information ecosystem. During the 2013 campaign, almost all national party leaders and candidates developed a Twitter strategy (or at least presence) and the mass media often reported politicians' tweets and citizens' reactions to them.

The rise of social media across Western democracies raises important questions for political scientists. The functioning of representative democracy depends, among other things, on the quality of citizens' information about public affairs (Powell 2004) and on the breadth, intensity and equality of citizens' participation in various types of political activities (Verba *et al.* 1995). As Norris (2000) claims, the competitive theory of democracy requires the media to function as public arenas, mobilizing agents, and watchdogs against abuses of power. To the extent that an increasing proportion of citizens use social media to acquire political knowledge and participate in the political process, and that social media have helped channel various large- and small-scale uprisings and bursts of citizen outrage, these environments have become relevant for representation and democracy—and, thus, a subject worth studying for political scientists. Because they are embedded in the everyday lives of their users and allow to manage multiple types of social relationships, social media may contribute to political information and participation not only *directly* by providing that information, but also *indirectly* as drivers of online and offline conversations among citizens, thereby impacting broader audiences beyond those who engage with these digital environments. In order to understand the political impact and implications of the web, it is therefore very important to assess whether and under what conditions online activity translates into offline political action. However, as we will see below, very little evidence has been offered so far on these issues. We aim to fill this gap by testing a set of hypotheses that allow us to empirically evaluate the link between online and offline political discussion through an innovative online survey of Italians who discussed politics on Twitter during the campaign. In order to better understand this phenomenon, we also provide careful estimates of the ways in which politically active Twitter users resemble the rest of the population, which we use both to inform our analysis and to interpret our findings.

The goals of this study are twofold: (1) to describe Italian Twitter users who discussed politics during the 2013 election, and (2) to assess whether engaging with online political communication prompts Twitter users to (a) talk about politics in offline conversations and (b) rely more on content acquired through the web and social media in face-to-face discussions. As we will show, there is indeed a very strong relationship between online and offline political discussion, and the content of web-based interactions are often relayed in face-to-face conversation, especially among those who are more active online. Therefore, political messages distributed through social media have a broader

potential reach than is commonly assumed because citizens who contribute to online exchanges are also more engaged in offline networks of personal political communication.

2. Literature Review

As a form of political engagement, political discussion is highly relevant for political science because, as emphasized by Delli Carpini *et al.* (2004, 322), it «can be used as an indicator of democratic health, much as rates of turnout, charitable giving, volunteerism, or news consumption are often used». Talking about politics has been found to promote other forms of participation by exposing people to information and motivating them to take action (Kwak *et al.* 2005; McLeod *et al.* 1999). Studies of political conversations have shown that both the mass media and individuals' personal networks of social relationships can deliver political information that citizens employ in their voting decisions (Beck *et al.* 2002; Huckfeldt and Sprague 1995; Campus, Pasquino and Vaccari 2008).

The emergence of social media, such as Facebook and Twitter, as arenas for political communication has the potential to expand the possibilities for political talk among citizens (e.g. Robertson *et al.* 2010). Together with the mass media and personal networks, social media comprise the information milieu that shapes citizens' political preferences and actions. As concluded by Shah *et al.* (2005, 532) in their study of the 2000 United States Presidential election, «information seeking and citizen expression online complement their offline counterparts, leading to civic participation in much the same way that traditional forms of news consumption and interpersonal discussion have been found to shape levels of engagement». In particular, social media may be conducive to greater political engagement in various ways: by providing information about political issues, by offering social cues that motivate citizens to take action, and by reducing the costs of collective action.

In order to assess social media's potential for citizen engagement, we need to know who the citizens are who discuss politics on these platforms, and whether and how they differ from those who do so offline. Mislove *et al.* (2011) investigated the demographics of Twitter users in the United States and found that they are a highly non-representative sample of the population. In a study of the 2011 U.S. gubernatorial elections, Bekafigo and McBride (2012, 15) found that white, middle-aged, college-educated males comprised the majority of people using Twitter to discuss politics and concluded that «familiar political voices are speaking out». However, they also found that some minorities and groups that are often detached from political debates were quite vocal on Twitter.

As mass media, social media, and face-to-face networks are complementary intermediaries for transmitting political information, whether and how political messages circulate across offline and online social networks becomes an important question. As suggested by Boase (2008, 490): «rather than radically altering relationships, communication technology is embedded in social networks as part of a larger communication system that individuals use to stay socially connected». Similarly, Nisbet and Scheufele (2004) argue that citizens acquire and process political news by integrating online and offline environments and that online political content is most influential among those who also engage with it offline. By contrast, internet use has minimal effects on political participation if citizens do not discuss politics both online and offline. The question thus arises whether discussing politics online translates into offline conversation.

If those who are most engaged with politics on social media are also more active in political conversations offline, then their function as influencers may be enhanced by social media, allowing the messages that circulate online to diffuse offline in populations that are broader than those that engage with social networking sites. This hypothesis is consistent with research on the 2005 British general election by Norris and Curtice (2008), who found that individuals who are highly interested in politics act as opinion leaders, acquiring information online and disseminating it offline while discussing the election with other citizens. An updated version of Katz and Lazarsfeld's (1955) classic theory of the two-step flow of communication may therefore help us understand the role of digital media in the diffusion of political information in the present age.

In this article, we investigate whether engagement with online political communication is conducive to offline political discussions, and whether political conversations on social media increase the likelihood that web-based political content travels offline. We focus on Italy because the Italian system of political communication is characterized by a number of distinctive features that affect the ways in which digital politics has developed. First, television has historically been extremely important as a source of political information. In the 2013 general election, 55% of Italians named televised newscasts as one of the two most important sources of information for their voting decisions (CENSIS 2013). By contrast, internet diffusion is still limited compared with many other European countries: in 2012 just 58% of Italians had used the internet in the previous three months, as compared with 74% of respondents from the European Union as a whole². As a result, fewer citizens engage with politics online in Italy than in countries such as Great Britain, France,

² See http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/data/main_tables (accessed 4 June 2013).

Germany, and the United States (Vaccari 2013). However, social media have become rather popular in Italy: according to a recent survey, 38% of Italians use social networking sites – on par with France (39%) and Germany (34%) but less than in Britain (52%) and Spain (49%). Furthermore, 36% of Italians who are on social media claimed to use them to discuss politics, which puts Italy in second place among the Western democracies included in the study³. The socio-demographic and political characteristics of Italians who engage with politics online are similar to those of their Western counterparts: relatively young, well-educated, and highly interested in politics (Vaccari 2013). Therefore, while we expect that Italians who discuss politics through social media will be a small minority of the entire population, their main characteristics should be comparable to those of citizens in other countries. In this article, however, we aim to move beyond descriptive analyses of citizens' web-based political activities by assessing whether and under what conditions these online endeavors can translate into offline behavior.

A second important feature of Italy is that, as in other «polarized pluralist» media systems (Hallin and Mancini 2004), it is characterized by high media-political parallelism, that is, strong ties between media and politics resulting in high levels of media partisanship—a tendency furthered by the fact that Silvio Berlusconi, the owner of the country's most important private television conglomerate, has also been the leader of the center-right coalition for two decades. According to van Kempen (2007), the correlation between media preferences and vote choices in Italy is among the strongest in Western Europe. Recently, this type of parallelism has emerged on the web as well, as Italian progressive parties and voters have been more engaged online than conservatives (Vaccari 2012) due to both supply and demand dynamics. On the supply side, the dominance of television and mass communication by the Berlusconi-led center-right has meant that center-left parties have had greater incentives to invest in digital communication to build a competitive advantage elsewhere. On the demand side, the center-left electorate is concentrated among social groups (students, teachers, highly educated voters) who tend to be more engaged in politics (Pasquino 2002) and more open to new experiences and cultural innovations (Carney, Jost *et al.* 2008), all of which presumably translates into greater online involvement. Consistent with these findings, a survey taken in November 2012 showed that most Italians who are politically active online describe their ideology as left or center-left, whereas those locating themselves to the right and center-right were much less engaged in digital politics⁴.

³ See <http://www.pewglobal.org/2012/12/12/social-networking-popular-across-globe/> (accessed 4 June 2013).

⁴ See <http://www.demos.it/a00798.php> (accessed 4 June 2013).

A third relevant feature of the Italian political context is low systemic support among citizens. Although political culture in Italy has historically been characterized by high distrust for political authorities and institutions (Pasquino 2002), recent developments such as the protracted economic crisis, multiple waves of scandals that involved most major parties, and the poor performance of institutions have all contributed to further decreasing Italians' confidence in their political authorities. A May 2012 Eurobarometer survey showed that only 4% of Italians trust parties, the lowest number in the European Union, where the average was 18%⁵. As Hirschmann (1970) has argued, in the face of such crises citizens can either *voice* their dissatisfaction, maintain their *loyalty*, or *exit* the system by refusing to engage with it any longer. Studying a country where a vast majority of voters have lost confidence in the political system offers an opportunity to ascertain whether social media typically attract the minority of citizens who express loyalty to the system, or involve those who are «critical» of it (Norris 1999) and aim to voice their discontent in hopes of improving its functioning. In the first scenario, social media would function largely as a channel for political stability, whereas in the latter case they would help to disseminate demands for political change.

This study focuses on a growing and politically relevant social media platform (i.e., Twitter) to test hypotheses related to the interplay between online and offline political communication. In particular, we aim to assess whether political information and discussion on the web translate into face-to-face political conversations, and whether greater involvement with social media prompts citizens to use the arguments and content they encounter online when they talk about politics offline.

3. Data

Political activities on social media can be studied in various ways. On one hand, scholars can use computer algorithms to analyze the massive amounts of public data that social media users produce as part of their interactions in these environments. The biggest advantage of engaging with these «big data» sources is that researchers can test hypotheses regarding social media usage by directly observing how citizens behave on these platforms. Alternatively, scholars can employ classic methods of social inquiry to study representative samples of social media messages and users. This strategy can lead to a more granular understanding of these phenomena, because questions can be asked that do not necessarily emerge from the content generated spontaneously by

⁵ See http://ec.europa.eu/public_opinion/archives/eb/eb77/eb77_anx_en.pdf (accessed 4 June 2013).

users and understood by machine algorithms, and the possibility to rely on statistical inference allows generalization of the findings to broader populations, to the extent that these can be precisely identified. For instance, Bode *et al.* (2011) conducted a survey with a random sample of Twitter users who followed U.S. Congressional candidates and Bekafigo and McBride (2012) interviewed a random sample of users who had posted messages containing certain political keywords. By focusing precisely on citizens who engage with politics on Twitter, such approaches are appropriate to test hypotheses and answer research questions that have to do with political uses and users of this social network.

In this article, we follow a similar route by analyzing a large sample of Twitter users who posted at least one message containing a reference to one of the main political parties or their leaders during the 2013 Italian general election. We identified our population of Twitter users who discussed Italian politics on the basis of politically relevant keywords (the names of the main political parties and their national leaders)⁶ that users included in their tweets in the period between January 18 and February 28, 2013. We therefore sampled users who talked about the election both during the campaign and immediately after the vote was held (on February 24-25). We queried Twitter's Streaming API⁷ in order to retrieve all of the tweets that contained the keywords of interest and obtained about 3 million tweets in Italian, posted by about 275,000 unique users. Given that (in October of 2012) there were approximately 3.3 million active Italian Twitter accounts, the population we sampled from corresponds to about 8% of all Italian Twitter users. Intriguingly, this percentage is very close to the 7.7% of Italians who report talking about politics offline every day (Segatti 2007, p. 42).

From this sampling frame of 275,000 users, we contacted a random sample of approximately 8,000 users from February 12 until the election, and another one of 27,000 users between March 4 and April 2⁸. Furthermore, a random sample of 5,000 users from the post-electoral sample was re-contacted

⁶ The keywords were: Berlusconi, Bersani, Casini, Di Pietro, Grillo, Ingroia, Maroni, Monti, Vendola (leaders); IDV, Lega, M5S, PD, PDL, Rivoluzione Civile, Scelta Civica, SEL, UDC (parties).

⁷ API stands for «Application Programming Interface» and is a set of instructions and protocols that enables users to access a web-based software application. Twitter's API (<https://dev.twitter.com/>) allows researchers to retrieve public Twitter messages as well as relevant «metadata» such as the identifier of the user who posted them, date, location, language, and so forth.

⁸ The original pre- and post-electoral samples were of 25,000 and 32,000 users, respectively. However, technical issues caused some contacting failures, especially in the pre-electoral phase. The number of contacts reported above are estimates based on our procedural logs. Because technical failures occurred on a random basis, the part of our

between March 20 and April 8⁹. Because no statistically significant differences in key variables (based on Chi-square and ANOVA F-tests) emerged between the pre- and post-electoral surveys, we present the results in combined fashion. Users in our sample were contacted individually via Twitter through an automated script¹⁰ that read as follows: «@[username] University research on social media use: Would you like to participate? [link to the survey]»¹¹. Although these messages are technically public, because they were addressed specifically to the users in our sample¹², no one else on Twitter could see them directly unless they followed both our account and the sampled users' account, or they were searching tweets containing keywords included in our invitation message.¹³ Therefore, we are largely confident that our sampling frame consists of a random sample of Italian Twitter users who discussed politics during the 2013 election campaign and that our respondents were part of our sampling frame rather than selecting themselves. Of course, it remains possible that the respondents who chose to answer the survey are not a random sample of the sampling frame, a point we return to in much greater detail below. For now, however, we note that the invitation to participate in the survey did not mention politics at all, which should in theory mitigate against bias in terms of political interest among those who chose to answer the survey.

The questionnaire contained 58 items and was administered online. Questions included citizens' socio-demographic characteristics, political preferences, offline political participation, political activities through the internet and social media, use of the mass media for political information, and vote in the 2013 election¹⁴. On average, respondents took about 20 minutes to complete the questionnaire. A total of 3,155 users saw the questionnaire,

sample that we managed to contact can be considered a random subset of our original sampling frames.

⁹ Because some users completed the questionnaires long after receiving our invitation, we kept our survey in the field until May 2, 2013.

¹⁰ We thank Leticia Bode for sharing with us the code of the script, as well as providing valuable information on her own experience with this survey method.

¹¹ The Italian wording was: «Ricerca universitaria sull'uso dei social media: vuoi partecipare?».

¹² Controls based on IP addresses ensured that the survey could be answered only once from the same computer.

¹³ Some of our addressees could, however, have shared the link to our survey and so, in principle, some users outside of our sample may have taken the survey. In a follow-up study, we explicitly asked respondents to report whether they had received the invitation directly from us or indirectly through other people. We found that 97% of respondents had received a direct personal invitation, which confirms that no significant distortions were introduced by responses from individuals who were outside of our sampling frame.

¹⁴ A copy of the questionnaire is available at <http://webpoleu.altervista.org/wp-content/uploads/2013/09/Questionario-survey-Risp.pdf>.

2,158 answered at least one question, and 1,493 answered at least half of the questions¹⁵. Therefore, based on the standard definition of Response Rate 2 (RR2) by the American Association for Public Opinion Research (AAPOR 2011), we estimate our response rate to be around 4%. Because this is by no means a high figure, before presenting our findings we illustrate evidence suggesting that our respondents can be considered representative of the sampling frame and, therefore, of Italians who discuss politics on Twitter.

In order to assess whether our sample is representative of our sampling frame, we need to know the extent to which the Twitter users who took our survey resemble those in the sampling frame. With regard to our respondents, we know their answers to our survey questions, but we do not know their social media activities (such as how often they posted messages, how many accounts they followed and are followed by, and the like) because selection into our survey was anonymous. With regard to the rest of our sampling frame, we do not know how they answered our questions because most of them declined to participate in the survey. However, we can address these issues by relying on two types of tools. First, we employ methods developed by scholars to estimate socio-demographic characteristics of Twitter users, such as gender, location, and political ideology (Barberá 2013). Secondly, approximately 40% of our respondents voluntarily provided their Twitter usernames during the survey, which allows us to observe their activities on Twitter. For this subset of respondents, we have both survey responses and Twitter activity. Thus we can compare how similar this portion of our survey respondents are to our entire sampling frame (based on Twitter activity) and how similar they are to survey respondents who did not give us their Twitter handles (through the survey data). Through this two-step process, therefore, we can compare our sample and sampling frame in order to evaluate whether the former is representative of the latter.

As we show in Appendix 1, respondents who provided their usernames were very similar to our whole sample of survey respondents in terms of demographic characteristics, as well as average interest in politics and ideology¹⁶. When compared against our whole sampling frame, these users turned out to follow more politicians' accounts, to have posted many more tweets about the election (but these posts do not overemphasize one particular party leader at the expense of others), and to be slightly more left-leaning. Given that users who are more interested in politics are likely to post more messages about the campaign and to follow more politicians and that respondents who provided

¹⁵ Among them, 400 had been invited to take the survey before the election, 1,017 after the election, and 76 during the re-contacting phase.

¹⁶ The only difference that is statistically significant is for interest in politics, but the values are extremely close (.75 vs .79 on a 0-1 scale).

their usernames were slightly more interested in politics than other respondents, we have reason to believe that the gap between our sample and sampling frame is smaller than it appears by looking only at those who provided their Twitter usernames. Nevertheless, in order to ensure the representativeness of our sample, we weighted our data for gender, region¹⁷, number of political accounts followed, and number of tweets posted that mentioned one party or leader. This approach is commonly adopted by survey researchers to ensure that sample margins match population margins in a set of key variables (Gelman and Hill 2007, 310-319). For those respondents who did not provide their Twitter usernames, we imputed five sets of values for the latter two variables using a Markov chain Monte Carlo method (Gelman and Hill 2007, chapter 25). We then computed five different sets of weights and ran multiple analyses using each of them, the results of which were then aggregated. Because we only weighted those cases for which we had information concerning all four variables, the total number of cases in our analyses is 1,408. Tables 1 and 2 below show both weighted and unweighted frequencies of the main variables in our analysis.

4. Research Questions and Methods

We aim to describe the main characteristics of Italians who talked about the 2013 election on Twitter, to investigate whether political communication online is conducive to political discussion offline, and to assess whether engagement in political conversations on social media favors dissemination of web-based content in face-to-face discussions. In order to achieve our first goal, we provide some descriptive statistics concerning the social and political characteristics of our respondents and compare them with the results of representative surveys of the Italian voting-age population¹⁸. We then address our second goal by describing the results of three ordinary least squares (OLS) multiple regression analyses that allow us to identify the factors that predict three different dependent variables¹⁹:

¹⁷ Gender and region were estimated based on users' profiles, such as their first names and the location they provided in their biographies.

¹⁸ We thank the Centro Italiano Studi Elettorali (CISE) and the Osservatorio Elettorale Lapolis, and in particular Lorenzo De Sio and Aldo Paparo (CISE) and Luigi Ceccarini (Lapolis) for making the data available to us.

¹⁹ Our dependent variables have unit values that increase as the frequency of the measured activities increases. The scale is from 0 (never) to 5 (every day) for the first variable and from 0 (never) to 3 (always) for the second and third ones. Since these variables are ordinal, we also ran ordinal logistic regressions and obtained essentially identical results in terms of both the direction and statistical significance of coefficients. In this article, we

The frequency with which respondents talk about politics in their offline conversations²⁰;

the frequency with which they relay content encountered on the internet during these face-to-face discussions²¹;

the frequency with which they relay content encountered on social media²².

We hypothesize that political communication involving the internet and social media predicts the frequency of respondents' offline conversations and their reliance on social media content in these discussions, even after adjusting for socio-demographic characteristics and political preferences that are usually associated with offline political discussion. We also expect that the conversational nature of the web will make it more relevant in shaping citizens' face-to-face discussions, in comparison with the mass media. Therefore, our first hypothesis is:

H1. Use of the internet and social media for political information will be positively correlated with offline political discussion and reliance on web-based content in those discussions. These correlations will be stronger than those involving mass media use.

Our second and third hypotheses differentiate between uses of social media to distribute and to receive political content. As specified in H2, we expect citizens who dedicate a greater portion of their social media posts to political issues²³ to be more active in offline political conversations as well:

H2. The importance that politics has as a topic for citizens' self-expression on social media will be positively correlated with their frequency of offline political discussion and reliance on web-based content in those discussions.

will show the results of standard OLS regressions in order to facilitate the interpretation of our results.

²⁰ The question wording was: «How often do you talk about politics with your friends, family, and acquaintances? Every day; more than once in a week; once in a week; more than once in a month; more than once in a year; never; don't remember».

²¹ The question wording was: «When talking about politics with friends, family members and acquaintances, how often do you usually refer to information or ideas you came across online? Always; most of the time; only some times; never; don't know».

²² The question wording was: «Specifically, when talking about politics with friends, family members and acquaintances, how often do you usually refer to information or ideas you came across while using online social media, such as Facebook or Twitter? Always; most of the time; only some times; never; don't know».

²³ We measured this independent variable through the following question: «Thinking about everything you have posted recently on social networking sites, such as status updates, comments, or links to news stories — about how much of what you have posted is related to politics, political issues or the 2013 elections? (0-100 scale)». The mean value in our sample was 42.7 and the median was 40.

Social media, however, allow citizens not only to express themselves, but also to view content posted by other users. We expect citizens who are exposed to a greater proportion of political content on social media²⁴ to be more engaged in face-to-face discussions as well²⁵.

H3. The proportion of political messages that citizens encounter on social media will be positively correlated with their frequency of offline political discussion and reliance on web-based content in those discussions.

It is important to acknowledge that our main dependent and independent variables all involve self-reported measures of how frequently respondents discuss politics online and offline. Although it would be extremely difficult to reliably assess these behaviors in any other fashion²⁶, we must acknowledge that, as is the case with all self-reported data, these variables are less than perfect measures of the phenomena under investigation.

Our models include a set of control variables that measure socio-demographic characteristics (gender, age, education, and income), preferences (interest in politics, internal and external political efficacy, and trust in parties), offline political participation (an additive index measuring the breadth of respondents' repertoires of political action)²⁷, and use of various media for political information. In order to compare the magnitude of the coefficients, all the independent variables were normalized and transformed to range from 0 to 1²⁸. Because our sample only includes Twitter users who discussed politics

²⁴ We measured this independent variable through the following question: «How about the people you are in contact with on social networking sites? How much of what they share and post is related to politics, political issues or the 2013 elections? (0-100 scale)». The mean value in our sample was 46.8 and the median was 47.

²⁵ In Appendix 2, we show a scatterplot of the dependent variables tested in H2 and H3, demonstrating that they are not strongly correlated with each other and, thus, capture different dimensions of political communication on social media.

²⁶ While an empirical study of the over 3 million tweets produced by the users in our sample is theoretically possible, the sheer volume of data is too large to allow us to extract the granular information that our survey provides. Analyzing the content of users' political conversations on social media is surely a valuable task, but one that must involve different research questions and requires a separate treatment in a study of its own.

²⁷ The 22 measured activities range from the institutional such as being a party member to the extra-institutional such as participating in a demonstration, including political consumerism.

²⁸ A number of our variables have missing data and, in particular, those measuring income and respondents' repertoires of political participation have 245 and 238 missing values. Rather than introducing bias through the use of listwise deletion (King *et al.* 2001), we instead mean-replace these missing values and add a dummy variable to the analysis identifying these cases. With this set-up, the coefficient on any given variable with missing data should be interpreted as the effect of that variable on our dependent variable for the cases for which we have observations of the independent variable in question; we thank Larry Bartels for suggesting this approach. The coefficients on the dummy variables

during the election, results should not be generalized beyond this particular population. Nevertheless, studying these citizens allows us to investigate whether the web can drive face-to-face political discussions that bridge online and offline content, thus reaching different and broader audiences than users of Twitter or other social media alone.

5. Findings

Table 1 presents the socio-demographic characteristics of Italians who discussed the 2013 elections on Twitter in comparison with the voting-age population. The purpose of this exercise is not to claim that our sample is representative of Italian citizens, but to better characterize how Italian political Twitter users differ from the whole population.

People who discussed the election on Twitter are disproportionately male, younger, better educated, more likely to be employed or in education, and less religious than average Italians. As we saw earlier, similar characteristics also distinguish citizens who use the internet for political information from the rest of the population. As a corollary, political discussion on Twitter largely does not involve people over 55 years old, who nonetheless comprise one-third of the population, and citizens with primary and lower secondary education, who constitute half of voting-age Italians. Accordingly, housewives and retirees – who combine for 40% of the Italian population – are almost absent from political discussion on Twitter, whereas students – 8% of the population – comprise 32% of those who communicated about the election on Twitter. Income is rarely probed in Italian surveys, so unfortunately we cannot compare our sample with the whole population, but the gap seems smaller than for other variables²⁹. The geographic distribution of political di-

identifying the missing cases – which are essentially meaningless because they are simply a function of whatever value we use to replace the missing observations – are not included in the tables (e.g., see Powell and Tucker 2013). However, out of six dummy coefficients, only the ones in the model predicting the likelihood to relay content found on the internet were statistically significant. To demonstrate the robustness of our findings, in Appendix 3 we report the results of the models obtained by listwise deletion of all cases with missing values, which are remarkably similar to those that we obtained in the models with imputed data. Given that we did not include weights in this analysis, it also shows that there are very few differences in our findings regardless of whether weights are used or not.

²⁹ The median net income of Italian families in 2010 was about 24,000 Euros, see http://noi-italia.istat.it/index.php?id=7&user_100ind_pi1%5Bid_pagina%5D=506&cHash=3bc729332f5973293e42c3a9a7a9865b (accessed 28 May 2013). We asked respondents to estimate their gross family incomes, which can be approximated as little less than double their net incomes given average tax rates.

scussants on Twitter is not dramatically different from that of the population, but the Northwest and Center areas are overrepresented while the South is underrepresented. Finally, whereas most Italian adults report that they go to church at least once a month, a majority of political discussants on Twitter never attend religious services.

TAB. 1. *Socio-demographic characteristics of Italians who communicated about the election on Twitter*

	Unweighted	Weighted ¹	Italian Population (CISE data)
<i>Gender</i>			
Male	60.8	65.4	50.2
Female	39.2	34.6	49.8
<i>Age</i>			
12-17	4.2	3.8	.6
18-24	30.7	30.4	9.2
25-34	28.7	28.1	11.0
35-44	20.3	21.0	23.5
45-54	11.6	11.7	17.5
55-64	3.6	4.2	16.7
65+	.8	.8	21.5
<i>Education</i>			
Primary/no title	.3	.1	19.6
Lower secondary	7.6	7.4	30.0
Upper secondary (2/3 years)	3.0	3.0	5.4
Upper secondary (5 years)	40.2	41.9	31.4
Degree	36.1	35.3	13.7
Master's Degree	8.8	8.9	N/A
Ph.D.	4.0	3.4	N/A
<i>Region²</i>			
Northwest	30.9	27.1	26.7
Northeast	9.6	8.7	11.4
Red Belt	17.7	16.3	18.1
Center	18.3	31.6	14.9
South	20.4	16.5	29.0
Foreign	3.2	-	N/A

TAB. 1. *continues*

Gross family income (Euros)			
Less than 6,000	5.3	5.2	-
6,000-12,000	9.1	9.1	-
12,000-18,000	13.0	12.0	-
18,000-24,000	13.1	13.1	-
24,000-30,000	11.7	11.1	-
30,000-36,000	10.8	11.4	-
36,000-42,000	9.7	10.0	-
42,000-50,000	7.1	8.3	-
50,000-75,000	10.7	10.6	-
75,000-100,000	5.3	4.9	-
More than 100,000	4.2	4.3	-
Occupational status			
Employed	54.9	55.2	43.8
Housewife/retired	2.2	2.1	40.0
Student	32.3	32.1	8.1
Unemployed	10.5	10.6	8.1
Church attendance			
Once a week	13.6	12.9	28.4
Two or three times a week	4.1	4.3	16.9
Once a month	6.4	6.7	11.5
Two or three times a year	24.4	24.9	23.5
Never	51.6	51.2	19.7
TOTAL	1493	1408	3052

Notes: 1 Weights were calculated by gender, region, number of political accounts followed, and number of tweets posted that mentioned one party or leader. 2 Northwest: Valle D'Aosta, Piemonte, Lombardia, Liguria; Northeast: Veneto, Trentino-Alto Adige, Friuli-Venezia Giulia; Red Belt: Toscana, Emilia-Romagna, Umbria, Marche; Center: Lazio, Abruzzo, Molise, Sardegna; South: Campania, Puglia, Basilicata, Calabria, Sicilia.

Thus, participants in political communication on Twitter are socially diverse, but they are far from a perfect cross-section of the Italian population. Instead, this type of engagement is characterized by disparities rooted in social stratification, especially with respect to education and gender, a finding that is consistent with the results of other studies of online political activity in

Western democracies (Vaccari 2013). However, the fact that younger people are more likely to engage in these discussions – primarily because they are more familiar with social media – may help to «ameliorate the well-known participatory deficit among those who have just joined the electorate» (Schlozman *et al.* 2010, 503) or, at the very least, make young people's participation more visible in the public sphere. Moreover, there is evidence that younger cohorts in Italy participate more than older ones when it comes to issues such as employment and peace (Legnante 2007). Social media may thus offer the youth convenient opportunities for topic-specific engagement, a conclusion that now looks even more important in light of recent developments in Turkey and Brazil³⁰.

Let us now turn to the political profile of our respondents. Table 2 compares our respondents to those of a survey that is representative of the Italian population and shows data on their interest in politics, the attention with which they followed the campaign, their trust in political parties and Parliament, the frequency with which they discuss political issues, and their ideological self-placement.

Online political communication is selective and, therefore, attracts citizens who are more politically engaged from the start (Bimber & Davis 2003). Political discussion is also a purposive activity that requires some commitment to politics (Bennett *et al.* 2000). Therefore, it is no surprise that political discussion on Twitter is mostly the purview of those citizens who are interested in politics and talk about it frequently offline: 90% of our respondents claim to be at least somewhat interested in politics, as opposed to 44% among the Italian population, even though the two populations were equally interested in the 2013 campaign. Moreover, 90% of our sample claimed to discuss politics offline at least a few times a week, as opposed to 50% among the voting-age population who claimed to do that «often». In spite of being very interested in and engaged with politics, however, our respondents are critical of the main authorities and institutions of representative democracy: only 14% express trust in political parties and just 26% have some confidence in Parliament, as opposed to 6% and 12%, respectively, in the general population. Thus, most Italians who discuss politics on Twitter are unhappy with the functioning of the system, but their levels of interest and frequency of political discussion show that they are willing to respond to the putative crisis of legitimacy through the expression of voice rather than exit or loyalty.

³⁰ See <http://themonkeycage.org/2013/06/24/brazil-is-a-stable-and-growing-democracy-and-were-not-going-to-take-it-any-more/>; <http://themonkeycage.org/2013/06/01/a-breakout-role-for-twitter-extensive-use-of-social-media-in-the-absence-of-traditional-media-by-turks-in-turkish-in-taksim-square-protests/> (accessed 25 June 2013).

TAB. 2. *Political characteristics of Italians who communicated about the election on Twitter*

	Unweighted	Weighted ¹	Italian Population (Lapolis data)
Interest in politics			
A great deal	43.2	43.4	10.2
A fair amount	45.8	46.1	33.4
A little	10.2	9.6	36.2
Not at all	.9	.9	20.1
Interest in the election campaign			
A great deal	55.4	55.7	
A fair amount	35.2	35.3	88.6 ²
A little	8.1	7.6	
Not at all	1.3	1.6	11.4
Trust in political parties			
A great deal	2.0	2.1	.8
A fair amount	13.1	12.9	5.1
A little	41.9	40.3	43.3
Not at all	43.0	44.5	50.7
Trust in Parliament			
A great deal	5.1	5.5	.9
A fair amount	21.8	20.6	11.0
A little	49.9	49.9	53.0
Not at all	23.3	23.4	35.1
Frequency of political discussion			
Every day	56.5	57.5	
A few times a week	33.1	32.9	49.6 ³
Once a week	4.8	4.4	25.3
A few times a month	3.4	3.3	
A few times a year	1.5	1.3	15.0
Never	.6	.6	10.1

TAB. 2. *continues*

Ideological self-placement			
Extreme left	3.6	3.4	N/A
Left	25.0	23.8	17.5
Center-left	20.8	21.1	19.2
Center	2.8	2.7	7.0
Center-right	11.7	12.3	10.5
Right	6.4	6.1	7.8
Extreme right	1.0	.9	N/A
«None of these apply to me»	28.6	29.6	38.0
TOTAL	1493	1408	1528

Notes: ¹ Weights were calculated by gender, region, number of political accounts followed, and number of tweets posted that mentioned one party or leader. ² The question asked was “Did you follow the 2013 general election campaign?” and respondents could only answer “yes (though in a cursory way)” or “no”. ³ The question asked was “During the campaign, how frequently did you happen to talk about politics with friends and family? Often, sometimes, rarely, never”.

In terms of ideology, our sample is skewed towards the left end of the spectrum. Voters who identify with the left and center-left are overrepresented compared to the whole Italian population, whereas those aligning with the right and center-right are more or less equally represented among those who completed our survey. By contrast, there are many fewer respondents in our sample who consider themselves centrists and who decline to locate themselves on the left-right continuum, in comparison with the Italian population. If we also consider that four times as many of our respondents placed themselves on the extreme left than the extreme right, our sample (as well as our sampling frame, see Appendix 1) deviates from the general population in terms of the relative balance between left and right³¹. However, the ideological differences we observed are consistent with the results of various studies, summarized above, showing that Italian progressives have been consistently more engaged in online political communication than conservatives. Our data thus confirm that similar patterns occurred on Twitter during the 2013 election.

³¹ While we cannot exclude the possibility that searching for other types of political keywords on Twitter may have enabled us to identify a less ideologically skewed sampling frame, the terms we queried included all the main parties and their leaders and were thus neutral from this standpoint. It is also worth noting that «Berlusconi» was the most tweeted keyword among those we searched.

Tab. 3. *Estimated coefficients for frequency of political discussion and frequency with which web-based content is used in political discussion*

	Offline political discussion		Internet content in offline political discussion		Social media content in offline political discussion	
	Coeff.	s.e.	Coeff.	s.e.	Coeff.	s.e.
Source of political information						
Social media	.079	.106	.547***	.103	1.491***	.110
Internet	.733***	.125	.561***	.120	-.400***	.124
Newspapers	.285***	.070	-.221***	.066	-.082	.072
Radio	.040	.062	-.204***	.060	-.139*	.066
Television	.170*	.075	-.290***	.073	-.035	.086
Percentage of social media content related to politics						
Posted by respondent	.314***	.093	.179*	.091	.343***	.101
Posted by respondent's connections	.049	.095	.135	.094	.070	.095
Political efficacy (disagreement with following sentences)						
«People don't have any say»	-.043*	.021	-.041*	.020	-.056*	.024
«Public officials don't care»	-.013	.020	-.005	.018	.009	.019
«Politics is too complicated»	.001	.022	-.036	.023	-.017	.022
Interest in politics						
Interest in politics	1.332***	.108	-.055	.118	-.154	.118
Trust in political parties	-.267***	.081	-.162	.084	-.095	.087
Repertoire of political participation	.431***	.124	.118	.127	-.114	.137
Gender (male)						
Gender (male)	-.101*	.044	-.004	.043	-.061	.042
Age						
Age	-.066	.114	-.316**	.117	-.237*	.118
Education						
Education	-.030	.139	.201	.128	.039	.133
Income						
Income	.132	.076	-.034	.073	-.089	.075
Constant						
Constant	2.424***	.172	1.543***	.155	1.182***	.161
N						
N	1277		1269		1268	
F-statistic (df=19)						
F-statistic (df=19)	45.625***		13.150***		16.684***	
Adjusted R ²						
Adjusted R ²	.399		.154		.190	

Note: Dummy variables identifying missing observations omitted from table; see note 29 for details.

***p≤.001 **p≤.01 *p≤.05

While this is an interesting result in and of itself, the ideological skew of our sample will not affect the validity of the analysis that follows, because we will not address the role of ideology as either a dependent or independent variable. Instead, we will focus on the relationship between political discussion on the web and on citizens' offline networks of personal communication by investigating our three hypotheses as well as assessing the role played by the control variables included in our models. In the first column of Table 3 we report the results of a multivariable model that posits that offline political discussion is a function of sources of political information, proportion of social media contents related to politics, political efficacy, interest in politics, trust in parties, repertoire of political participation, and respondents' gender, age, education, and income. In columns two and three we estimate the same model for the use of internet content in offline political discussion, and the use of social media content in offline political discussion³².

The results indicate that a positive, statistically significant correlation exists between respondents' use of the internet for political information and the frequency with which they discuss politics offline, even after controlling for socio-demographic characteristics, political preferences, political participation, and media use. For instance, in the first column we can see that a change in the frequency of getting political information on the internet from «once a month» to «every day» increases the frequency of offline political discussion from 3.9 to 4.3 on a 0-5 scale (a half standard deviation) when the values of all other independent variables are set to their mean or mode. Although establishing causality would require the analysis of longitudinal or experimental rather than cross-sectional data, the strong association between online and offline political communication indicates that digital media, and especially social media, are part of a broader informational network that branches out into offline discussions.

These findings suggest that citizens who are politically active on the web can, by virtue of their greater offline involvement, increase the reach of digital messages beyond their direct audiences. A majority of our respondents claimed to relay content initially encountered through the internet (80.2%) and social media (61.8%) in their offline political conversations³³. This figure is worth emphasizing: to the extent that our survey respondents are representative of politically active Twitter users, close to two-thirds of Italians discussing politics on Twitter may be using what they have learned online to inform

³² Analysis of Variance Inflation Factors in the models below suggests that multicollinearity does not affect the precision and reliability of our estimates, as the VIF estimates were never greater than 2.

³³ These percentages were obtained by combining the frequencies of response categories «always» and «most of the time».

their offline political conversations about politics. Moreover, the second and third models reveal that the use of social media for political information is strongly and significantly correlated with the probability of relaying content encountered on both the internet and social media in face-to-face discussions. As an example, a change in the frequency of political information through social media from «once a month» to «every day» increases the frequency of relaying internet-based political content from 1.7 to 2.0 on a 0-3 scale (a half standard deviation) and increases the frequency of relaying social media-based political content from .7 to 1.6 on a 0-3 scale (more than one standard deviation)³⁴. Moreover, as expected, the coefficients for receiving political information from the internet and social media are higher than those for receiving political information from newspapers, radio, and television (all of which are negative in our second and third models), thus confirming that the conversational nature of the web makes it particularly conducive to offline discussions. In sum, our first hypothesis (H1) is supported: the more citizens engage with political information on the web and on social media, the more they talk about politics in their offline networks and re-circulate digital content in face-to-face encounters.

Let us now focus on how different forms of political engagement via social media can spread through face-to-face discussions. Our second and third hypotheses differentiate between active and passive political uses of social media, that is, posting and reading messages, respectively, that have to do with politics. Such types of usage obviously coexist in most citizens' digital lives, but they can be conceptually and operationally distinguished. As results in Table 3 show, we obtained strong support for H2 in all three models: the more often politics is featured in respondents' posts, the more they talk about politics offline and report content that was exchanged on the web in those interactions. Interestingly, however, we found no support for H3, insofar as the coefficients for the variable measuring the percentage of political messages received through social media were positive but not statistically significant. This suggests that sheer exposure to political information (i.e., reading political comments posted by others) on social media does not necessarily translate into face-to-face discussions. It also suggests that web-based content can be transferred offline even by those users who are not exposed to an especially high proportion of political messages on these platforms. Support for H2 and the lack of support for H3 suggest that *engagement* with political information

³⁴ Use of the internet for political information was positively and significantly correlated with our second dependent variable, but negatively with the third one, suggesting that a substitution dynamic may exist between the internet and social media as sources for content in offline political conversations.

on social media can prompt offline discussions more powerfully than *exposure* to political messages in digital environments.

In addition to results bearing on our main hypotheses, the models yield other interesting findings concerning the impact of some control variables. First, the social stratification of offline political discussion, at least among Twitter users who discussed the election, is almost nonexistent, with women more likely to discuss politics than men, slight negative associations with age, and no statistically significant correlations with education or income. Although our respondents are atypical in many respects, social distinctions within the sample do not affect their frequency of face-to-face political talk. Among political users of social media, these platforms seem to act as levelers of resource-based political inequalities, an outcome that can be considered normatively desirable even though it is limited to those who have both access to the internet and the skills that are necessary to engage with social media. However, the internet cannot balance participatory disparities that are linked to citizens' motivations (Schlozman *et al.* 2010), as shown by the strong positive impact of both interest in politics and the breadth of citizens' repertoires of political participation on the frequency of face-to-face political discussion. The data also suggest that Twitter users who talk about politics offline and who relay offline the information that they find online tend to be pessimistic about their influence on the political system and critical of political authorities. This is shown by the negative coefficients (one of which is significant) between trust in parties and the dependent variables, as well as the generally negative associations between the dependent variables and our measures of political efficacy, one of which is significant in all models. Even though it is densely populated by elites (political and otherwise), Twitter is thus not necessarily an echo chamber for content political insiders. Instead, it provides a channel for dissatisfied but still engaged citizens (see also Monti *et al.* 2013). These patterns may contribute to explaining the success of the Five Star Movement in mobilizing these critical citizens through the internet in the 2013 campaign (Bordignon and Ceccarini 2013).

Before concluding, it is important to acknowledge the limitations of our findings. First, we have presented a single-country case study whose results cannot be automatically generalized to other Western democracies, *let alone* different regime types. Comparative research has shown that the political role of the internet develops in each country in ways that are shaped by political institutions, party organizational characteristics, and citizen preferences (Vaccari 2013): social media should be no exception. In particular, digital politics in Italy has developed in a peculiar way compared to most other Western democracies due to low internet diffusion, different communication strategies of progressive and conservative parties, and widespread political disaffection among citizens. These systemic cha-

racteristics are likely to shape web 2.0 political communication in Italy in ways that may differ from other Western democracies. Only comparative analysis can address these questions by testing hypotheses that apply beyond a single country. The second limitation of our study is that it only addresses politically involved users of one social media platform – Twitter – and leaves out broader sectors of the political community such as those who lack internet access, do not use social media, or did not discuss politics during the election in these environments. As a result, although we showed that our findings can confidently be generalized to Italians who talked about the election on Twitter, our data are not valid beyond this specific population, and therefore can only help us to understand the causal drivers of political behavior among these – politically interesting – citizens.

6. Conclusions

Most prior studies of how political information circulates among voters have focused solely on the mass media while neglecting both digital media and face-to-face discussion. Moreover, the intersections between citizens' online and offline political exchanges have rarely been investigated. We have shown that political information and discussion on the web are important drivers of face-to-face conversations about politics and that online content circulates in offline discussions. For those Italians who discussed the election on Twitter, the role of the web in this regard is significantly stronger than that of the mass media, which is consistent with the conversational nature of the former and the more passive user experience afforded by the latter. Citizens do not clearly separate their online and offline engagement with politics, and the most active and critical among them facilitate the flow of information from one domain to the other, thus bridging spheres of political interaction that are often thought of as separate or even mutually exclusive. In the age of ubiquitous communication, voters are constantly targeted by avalanches of political messages, especially during campaigns, but research has shown that interpersonal communication among citizens still plays an important role in filtering mass media content and influencing vote choices. Therefore, to the extent that people who engage with politics online are also more active in offline conversations and more likely to relay the content that they encountered online in face-to-face interactions, web-based political messages can influence voters' information and behavior through two different causal mechanisms: a *direct* one, which affects only the audiences that engage with politics on digital platforms, and an *indirect* one, by which the highly interested citizens who engage with politics on the web spread the messages encountered on the internet to their offline personal networks.

Consistent with earlier research on digital politics, Twitter attracts a very peculiar subset of citizens, who differ from the population writ large in terms of demographic characteristics. Engaging with politics through the web is conducive to greater face-to-face involvement and the propagation of digitally acquired information through interpersonal interaction, and these effects seem to occur regardless of the individual's social and demographic characteristics. Our findings suggest the possibility that as more Italians begin to use social media to discuss politics, we will begin to see even more offline discussion of politics. Intriguingly, the sheer unrepresentativeness of Twitter users – especially their youth – and the fact that those who engage in political discussions on social media tend to participate offline as well means that a demographic group that usually «punches below its weight» in terms of political involvement may have found a viable channel for political self-expression. There is reason to believe that, under certain conditions, they could be encouraged to increase offline participation through informational and/or motivational appeals transmitted through the internet and re-circulated by their peers in personal conversations. Moreover, the relationship between online and offline communication is especially strong for citizens who are disaffected with the political system and critical of its authorities, which suggests that Twitter may provide new opportunities for voice and a distinctive potential to hold elites accountable, especially to the extent that politicians and journalists increasingly rely on Twitter for instant cues on the preferences of intense minorities or the general public. Our results suggest that what happens online does not stay online, but rather moves offline and affects citizens' face-to-face conversations. To the extent that this is true, the political demands that are articulated through social media will become harder to ignore for anyone who is interested or involved in the political process—including those who are inclined to study it.

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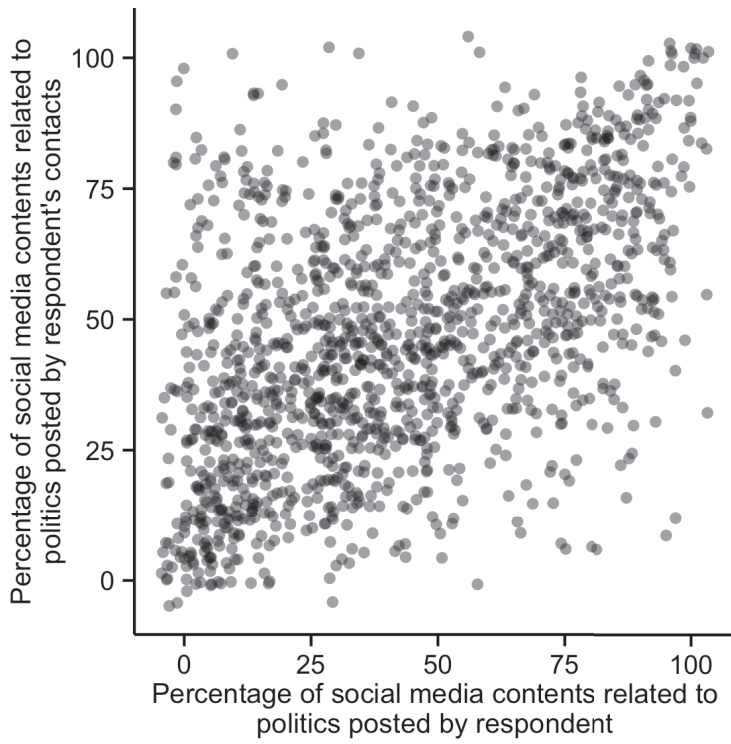
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Appendix 1. *Characteristics of Twitter users in the sampling frame and Twitter users who participated in the survey and provided their Twitter account names*

Socio-political characteristics	Did not give username	Gave username	p-value
% female	40.5	37.3	.210
Average age (years)	32.0	32.0	.942
Average educational level (0-1)	.64	.62	.077
Average income bracket (0-1)	.46	.45	.359
Average interest in politics (0-1)	.75	.79	<.001
Ideology (left-right, 0-1)	.38	.37	.803
TOTAL	880	613	
Twitter activities	Sampling frame	Gave username	p-value
Number of followers	236	239	.883
Total number of tweets	3,223	2,983	.574
Tweets mentioning political keywords	12	31	<.001
Tweets mentioning Berlusconi	3	7	.001
Tweets mentioning Monti	2	5	.008
Tweets mentioning Bersani	2	4	<.001
Tweets mentioning Grillo	2	4	<.001
Tweets mentioning Ingroia	1	3	.06
Number of days since account was created	605	781	<.001
Ideology (left-right, -3 to +3 scale) ¹	-.31	-.44	.022
Number of political accounts followed	11	20	<.001
% female	38.2	38.3	.992
TOTAL	55,245	585	

Note: Estimated based on the method described in Barberá 2013.

Appendix 2. Scatterplot of the last two dependent variables in Table 3



Appendix 3. *Estimated coefficients for frequency of political discussion and frequency with which web-based content are used in political discussion, unweighted and based on listwise deletion of cases with missing values*

	Offline political discussion		Internet content in offline political discussion		Social media content in offline political discussion	
	Coeff.	s.e.	Coeff.	s.e.	Coeff.	s.e.
Source of political information						
Social media	.137	.122	.520***	.112	1.536***	.117
Internet	.520***	.139	.551***	.129	-.357**	.133
Newspapers	.195*	.083	-.218**	.076	-.094	.080
Radio	.081	.074	-.062	.068	.007	.071
Television	.179*	.083	-.328***	.076	-.128	.079
Percentage of social media content related to politics						
Posted by respondent	.341**	.108	.240*	.099	.273**	.104
Posted by respondent's connections	.148	.111	.106	.103	.090	.107
Political efficacy (disagreement with following sentences)						
«People don't have any say»	-.047	.024	-.063*	.022	-.039	.023
«Public officials don't care»	-.032	.022	.001	.020	.014	.021
«Politics is too complicated»	-.008	.025	-.031	.023	-.007	.024
Interest in politics	1.500***	.128	-.034	.117	-.161	.123
Trust in political parties	-.222*	.101	-.221*	.092	-.166	.097
Repertoire of political participation	.323*	.144	.032	.132	.032	.139
Gender (male)	-.096*	.049	-.023	.045	-.064	.047
Age	-.106	.146	-.404**	.134	-.227	.140
Education	-.036	.153	.095	.140	.013	.146
Income	.082	.083	.087	.076	-.074	.080
Constant	2.495***	.179	1.609***	.164	1.036***	.171
N	935		933		931	
F-statistic (df=17)	37.347***		10.193***		15.205***	
Adjusted R ²	.398		.144		.206	

Note: ***p≤.001 **p≤.01 *p≤.05

