

Flames and Debates: Do Social Media Affect Satisfaction with Democracy?

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Accepted: 31 January 2015 / Published online: 8 February 2015
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Abstract Media plays an important role in defining the quality of democracy in consolidated democracy. Internet, in turn, can wield effects on democracy and many scholars have investigated such relationship. Moving from this literature we use Eurobarometer data to estimate the effect of Internet on the satisfaction with the functioning of democracy among European citizens. The results show that Internet usage, per se, has no effect on the satisfaction with democracy. However, the consumption of online news can make the difference, even though this effect is positive when users consume news from online traditional media while social media has a negative effect, which is mediated by the level of online disagreement and the potential emergence of flames.

Keywords Satisfaction with democracy · Network heterogeneity · Deliberation · Traditional media · New media · Social media

1 Introduction

The rise of social media and social network sites (SNS) has re-opened the debate on whether the web enhances responsiveness and accountability, becoming a new public sphere and fostering the potential for direct democracy, diffusion of news and deliberation or, conversely, the Internet replicates off-line trends and has a limited impact on the democratic polity. This debate flows from the academic realm to the real world as long as

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some governors, like the Turkish premier Erdogan, have tried to switch-off social network in order to prevent the circulation of information on this source. Similarly, politicians like Michael Bloomberg argued that SNS can hinder the good governance of the political system allowing citizens to challenge and hamper, in real time, any decision taken by the political institutions.

In light of this, scholars started to investigate the effect of Internet and the consumption of news on-line on the political awareness and knowledge as well as on the level of engagement and participation. With few exceptions (e.g., Bailard 2012; Memoli and Splendore 2014), little attention has been paid to how the web shape trust in political institution and satisfaction with democracy. This sends back to the idea of (perceived) responsiveness, which is a concept strongly related to the legitimacy of the regime (Morlino 2009). As long as the satisfaction with democracy is also affected by the performance of the political institutions observed by citizens through the lens of (old, new and social) media, the present paper will analyze the link between satisfaction and consumption of on-line news.

For this purpose, we will exploit a Eurobarometer survey held in November 2012 across 27 European countries to disclose the different effect of Web 1.0 (institutional websites and traditional new media) and Web 2.0 news sources (unmediated interactive social media) on a citizen's likelihood to express satisfaction with how democracy works in his own country.

The results confirm the hypotheses based on our theoretical framework showing that the mere usage of Internet, per se, is unrelated with democratic support whereas the consumption of on-line news matters. While the consumption of information from new media still relies on a top-down Web 1.0 format driven by political elites (Hindman 2009) that promotes satisfaction with democracy, the unmediated bottom-up nature of news from social media allows the circulation of alternative viewpoints that can negatively affect citizens' judgment of democratic responsiveness. Furthermore, social media can also expose citizens to other counter-attitudinal opinions, increasing the likelihood of 'flames' that increase skepticism toward democracy.

The paper is organized as follows. The next section describes the adoption of the satisfaction with democracy as a proxy for responsiveness. Section 3 summarizes the literature on media, Internet and democracy and outlines our theoretical framework focused on the differences between new media and social media formulating hypotheses accordingly. Section 4 describes the data. Sections 5 and 6 display and comment the results of the analysis.

2 Satisfaction with Democracy and Responsiveness

Easton (1975) describes the citizens' identification with the State as well as their evaluation of the political institutions as the fundamental cornerstones of democratic support.

The analysis of democratic support has gained progressive relevance even in countries where democracy is consolidated due to the ongoing crisis of legitimacy of democratic institutions, which seems confirmed by the reduced levels of participation and political trust.

To understand such phenomena, the large literature on democratic support has often focused on the degrees of citizens' satisfaction with democracy, which is in fact one of the indicators most employed by scholars being often surveyed by traditional polls.¹

¹ For instance, the standard format of the question used in the *Eurobarometer* surveys is: 'On the whole, are you very satisfied, fairly satisfied, not very satisfied, or not at all satisfied with the way democracy works in (your country)?'.

This indicator correlates with specific and diffuse measures of support (Klingemann 1999), political trust (Dalton 1999) perception of economic satisfaction (Bellucci and Memoli 2012), and it also reflects partisan and/or ideological disagreement with the incumbent government. Besides measuring system support at a low level of abstraction, the satisfaction with democracy also catches the short-term evaluation of the outputs of the democratic system, and it is therefore related to government effectiveness (Dahlberg and Holmberg 2013) and the quality of the democratic governance (Wagner et al. 2009; Curini et al. 2012).

In this regard, the degree of citizens' satisfaction with the political system seems a good proxy to evaluate the perceived degree of responsiveness of the regime itself (Morlino 2011; Morlino and Quaranta 2014). In fact, the responsiveness, i.e. the ability of the government to systematically respond to citizens' preferences, is one of the basic concepts of democratic quality (Diamond and Morlino 2005), and reflects the degree of satisfaction with the democratic political system.

Since responsiveness is strongly related to the legitimacy of the regime (Morlino 2009), several scholars do suggest to measure the (perceived) responsiveness of the democratic institutions through indicators of political support, like the satisfaction with democracy, which decreases when the outputs of the political systems conflict with the sentiment of public opinion.

We know that when government choices are not in line with citizens' opinions, their satisfaction with democracy may shrink. However, citizens make their judgments according to the information available that means, through the lens of traditional media, at least until the rise of social media and SNS. As long as the public opinion can be influenced by the content of political news broadcast on the media (Jacobs and Shapiro 2000), citizens are also sensitive to how news media diffuse or slant political news, which can alter citizens' attitudes and satisfaction with the democratic regime. New and old media, in fact, play a key role in allowing citizens to monitor the actions of political institutions and the content of political information available to the citizens must be taken into account (Ceron and Memoli 2015).

In the following sections we will summarize the literature on the relationship between democracy and traditional media, new media and social media and we will raise hypotheses on the impact of Internet on the satisfaction with democracy.

3 Media, New Media and Social Media: Literature and Hypotheses

3.1 Traditional Media, Information, and Democracy

The freedom of expression and the freedom of press are the fundamentals of democracy. A political system can be defined fully democratic only if there are independent media able to adequately spread political information, supervise the performance of the government, and broadcast a pluralistic set of voices and judgments on the functioning of the political system itself.

Traditional media provide citizens with information useful to monitor the outcomes produced by their political representatives, and allow citizens to make informed choices thereby increasing their level of political awareness, responsibility and trust in representative democracy. In fact, the availability of more information helps voters to monitor politicians more efficiently (e.g., Besley and Prat 2006).

In addition, the media can be a 'watch-dog' that protects against power abuse, facilitates political accountability and combats corruption (Camaj 2013), with effects on the citizens'

confidence in public institutions. From this perspective, then, the media become the backbone of democracy and act like an institution that improves the democratic process and promotes loyalty toward the political system.

Despite the relevance of the media in the political process, their impact on democracy is disputed. The negativity of media along with the coverage of politics as horse-race can be sources of political mistrust, 'malaise' and cynicism (e.g., Cappella and Jamieson 1997) that decrease trust in government (e.g., Robinson 1976).

On the contrary, according to Norris (2000), the availability of political information provided by the media increases trust in the political system among users that access those contents, while it has no effects on apathetic citizens that are unwilling to follow political news. As such, the exposure to political news will produce a virtuous circle of trust in democratic institutions (Norris 2000) and the media will enhance political interest, knowledge and participation (Dalton 1996; Norris 2000; Scheufele et al. 2006).

On the whole, the consumption of political news should be beneficial for democracy having a positive effect on the degree of responsiveness perceived by the citizens and on their level of satisfaction. This is even more true if we consider that news media can slant their reports in order to further support for the democratic regime. In this case, media users will be even more satisfied and they can be driven to feel that the degree of responsiveness of the political system is higher than they expected (Ceron and Memoli 2015). Despite their attempt to broadcast pluralistic views, in fact, several media tend to slant their news and such bias is often induced by political actors like governments, that have an intrinsic interest in promoting their viewpoints to build support for the regime (Bennett et al. 2007; Besley and Prat 2006; Ceron and Memoli 2015; Djankov et al. 2003). But the same reasoning could also apply when the source of bias comes from owners, editors, advertisers, lobbyists, or journalists, i.e. the political elite (Besley and Prat 2006; Djankov et al. 2003).

While the diffusion of political news, per se, can increase satisfaction toward democracy, the top-down approach followed by traditional media outlets can be additionally profitable whenever the political elite proposes a viewpoint that supports of the democratic regime.

3.2 Internet and Democracy

In recent years Internet and the new media flanked traditional media in the fields of information and communication. The increased number of countries (+521 % between 1993 and 2012) and users (35.5 % of world population in 2012)² with access to the web has stimulated the interest of scholars who started to explore the relationship between Internet and democracy (Bailard 2012; Boullianne 2009; Ceron et al. 2013; Ceron et al. 2014; Morozov 2011; Xenos and Moy 2007).

Some of them suggest that the Internet can become an uncoerced public sphere (e.g., Benkler 2006) or a source of direct democracy, thus contributing to enhancing responsiveness and accountability in real-world politics (Besley and Prat 2006; Khazaeli and Stockemer 2013). Conversely, other scholars expressed a more skeptic view (Alvarez and Hall 2011; Hilbert 2009; Hindman 2009).

On the one hand, some empirical analyses attest that Internet strengthens citizens' demand for democracy (Norris 2011) or commitment to democratic governance (Nisbet et al. 2012; Swigger 2013) and satisfaction toward democracy (Bailard 2012). Internet and

² Source: World Bank.

social media can wield positive effects on political knowledge, political participation or several other indicators of civic engagement (Anduiza et al. 2009; Bakker and De Vreese 2011; Boullianne 2009; Jennings and Zeitner 2003; Kaufhold et al. 2010; Kobayashi et al. 2006; Östman 2012) and Internet penetration seems even able to increase voter turnout (Miner 2012).

On the other hand, some studies did not corroborate these findings. Scholars shed light on the null or negative impact of Internet on democratic regimes showing that the web does not further neither political knowledge and awareness (Kaufhold et al. 2010; Scheufele and Nisbet 2002) nor participatory behavior (Quintelier and Vissers 2008). Falk et al. (2012) and Campante et al. (2013) also witnessed a negative effect of Internet penetration on turnout. Finally, on-line communities can produce undesirable consequences for the democratic polity as long as they radicalize (rather than moderate) the positions of their users (Alvarez and Hall 2011; Hilbert 2009; Hindman 2009) becoming a source of ideological lock-ins (Sunstein 2001).

The literature seems to report controversial effects of web usage. A meta-analysis of Internet studies, however, analyzed 38 works and showed that Internet is overall beneficial for democracy, even though this positive effect holds only when the web is expressly used to gather news and retrieve information (Boullianne 2009).

We know that Internet users can in fact access the web for several purposes ranging from entertainment to information retrieval. Citizens can either log-into send e-mails, chat with friends, buy electronic tickets or goods, comment on the results of their favorite football team, or gather political information. There are no reasons to expect that Internet usage, per se, is beneficial for democracy, and in fact its usage can also be detrimental when focuses on entertainment and subtracts time to other civic activities (Putnam 2000). Any positive effect, then, seems to be linked with the consumption of information rather than mere usage.

Scholars argue that 'the potential political influence of the Internet hinges on its capacity to make communication, information retrieval, and information dispersion more efficient' (Bailard 2012: 157; Ceron et al. 2013) as the news can be distributed at high speed, low cost and broad scope. Indeed, the web produces every day an astonishing huge amount of information that also contains some alternative viewpoints not broadcast by traditional media (Benkler 2006).

The news content available on-line and the opportunity to easily (and almost freely) access to a variety of websites that may report contrasting viewpoints allow users to get in touch with a larger and more pluralistic amount of information if compared to that provided by traditional media. By doing so, the web facilitates communication and access to political news providing citizens with more and diverse information useful to evaluate the performance of the government and the political system, and altering their satisfaction toward democracy accordingly (Bailard 2012).

3.3 The Different Impact of New Media and Social Media

The theoretical framework discussed above presents two major drawbacks. First, Internet usage does not guarantee consumption of pluralistic information, for instance because users can select the news with the risk of increasing ideological polarization (Falk et al. 2012; Hindman 2009; Sunstein 2001).

Moreover, Internet is not a monotonic environment as the rise of social media and SNS has shown. Recently, scholars have begun to differentiate Web 1.0 from Web 2.0 arguing that 'the transformation from Web 1.0 to Web 2.0 is basically a transformation from the Web as a mass medium to the Web as a networked community medium' (Vergeer 2012:

10). Accordingly, we should distinguish between the impact of the consumption of news coming from new media (i.e. websites linked to mass media political elites) and those coming from social media (e.g., independent blogs and SNS).

In the 'read-only' Web 1.0, the new media still rely on a one-way communication similar to that provided by off-line mass media. Political information flows from the top (i.e. the political elite), with limited room for user generated content or interaction with the audience.

On the one hand, the new media overcome some of the constraints (e.g., resources, time and space) typical of off-line media that restrict the diffusion of news. On the other hand, the information available on new media is still mediated and influenced by the interests of editors and political elites, who decide which news to diffuse and which not, and slant the content according to those interests. In fact, on-line political information in the Web 1.0 seems still dominated by a limited number of media outlets belonging to the same traditional news media corporation that are active off-line (Hindman 2009).

As such, we would expect that the consumption of news coming from new media will have positive effects, similar to that exerted by traditional media (e.g., newspapers). The availability of additional political information that can generate a virtuous circle, along with the pro-system slant offered by official governmental and media outlets websites should foster satisfaction with democracy.

H1 Satisfaction toward democracy should be higher among Internet users that consume news from new media.

The top-down approach of 'Web 1.0 new media' is radically different from that of social media in the more interactive Web 2.0. While traditional media have dominated the process of content creation and distribution for a long time, the rise of social media can alter this picture given that social media defy traditional mainstream media outlets providing room for a new bottom-up style of communication (Benkler 2006).

The architecture of blogs, forums, and SNS like Facebook or Twitter allows to easily create user-generated content and promotes participation and peer-to-peer conversation. For this reason, several scholars consider social media as a space for democratic debate (Ceron et al. 2014) that can favor the decentralized control exerted by citizens in place of the hierarchical control of the elite (Benkler 2006; Meraz 2009).

The unmediated bottom-up form of communication typical of social media and SNS can potentially alter individuals exposure to new information, allowing direct access to news that circulate among peers (citizens), without the moderation of news corporations (Bakshy et al. 2012).

This lack of editorial filtering produces a more plural public sphere where alternative voices are no longer restrained by dominant media outlets and fosters critical thought among Internet users (Benkler 2006). This element increases the likelihood to be exposed to anti-system arguments (Ceron et al. 2013) and should decrease citizens' satisfaction with the existing democratic institutions. Furthermore, due to exposure to unmediated criticism, social media users can become too much demanding of political institutions and the consumption of online news does no longer generate a virtuous circle (Norris 2011; Stoycheff and Nisbet 2014).³

³ While the virtuous circle theory argues that news have positive effects among consumers that already have prior political interest and knowledge (Norris 2000, 2011), in the social media world there can be accidental exposure to anti-system arguments (e.g. Chadwick 2009) even among users with limited political knowledge.

H2 Satisfaction toward democracy should be lower among Internet users that consume news from social media.

While the consumption of news from social media can be damaging per se, its unmediated nature that gives room to alternative viewpoints and critical voices can be detrimental also for other reasons.

The highly pluralistic social media environment and the availability of contrasting viewpoints can expose users to alternative opinions and news sources. Notwithstanding the potential homophilic nature of SNS, several studies suggest that elements like hyperlinks and hashtags can ‘drive users to unanticipated loci, producing an unintentional or ‘by-product’ learning effect and exposing users to content they would not have encountered otherwise’ (Sudulich et al. 2014: 7; see also Norris 2000; Putnam 2000; Tewksbury and Rittenberg 2012). These characteristics are not exclusive of social media, even though their impact could be markedly strong due to the structural features of Web 2.0 blogging platforms, which facilitates accidental exposure to contrasting political information (Chadwick 2009).

On the one hand, the unmediated nature of social media increases the likelihood that users filter and interpret news on their own, according to pre-existing ideological bias. On the other hand, the co-existence of pluralistic and polarized views in the interactive Web 2.0 favors public discussion and debate, but such debate can take the form of a ‘flame’, rather than that of a compromise. Far from making individuals more open-minded, the potential heterogeneity of the social media networks does not necessarily mean that online debates end up in public deliberation (Lee et al. 2014). Indeed, online discussions tend to polarize opinions, particularly when the heterogeneity of a user’s network increases (Lee et al. 2014). When a user bumps into other users that express contrasting opinions and report counter-attitudinal news, such ‘close encounter’ increases cross-cutting pressure and its inherent conflict. This brings him to discover the dark side of social media and to experience the drawbacks of deliberation (Torcal and Maldonado 2014), producing a devaluation of politics (Mutz 2002) and fostering skepticism toward democracy.

H3 Satisfaction toward democracy should be lower for an Internet user that consumes news from social media when his attitudes, on average, differ from those of other social media users.

4 Dependent and Independent Variables

To test the hypotheses raised in the previous section we revert to data from the Eurobarometer survey held in November 2012 across 27 European Union countries.

Respondents were asked whether they are satisfied with the way democracy works in their country. For our purpose, we distinguish between citizens that are very or fairly satisfied from those who are either not very satisfied or not satisfied at all, and create a dummy variable, satisfaction with democracy, which will be our dependent variable. This variable takes the value of 1 when respondents tend to be satisfied and the value of 0 otherwise. On average, almost 1 citizen out of 2 (47 %) expressed satisfaction toward democracy.

The main independent variables will be related to Internet usage and will discriminate two facets. In particular, we will distinguish the impact of using Internet websites from that of using social media. In addition we will differentiate between respondents that explicitly

declare to use Internet websites as sources of information from those who gather news on social media. To do that we employ the following variables.

Internet usage is a categorical variable that measures the frequency of each respondent's use of the web. It takes the value of 0 if the respondent surfs the web less than once a week or does not use Internet at all; it takes the value of 1 if the respondent surfs weekly, the value of 2 if the usage takes place more than once a week, and the value of 3 if the respondent accesses the web almost every day.

Similarly, SNS usage, records the frequency of each respondent's access to SNS. It takes the value of 0 if the respondent uses SNS less than once a week or does not use them at all; it takes the value of 1 if access is weekly, the value of 2 if he accesses more than once a week, and the value of 3 if SNS usage is daily or almost daily.

These two variables trace the frequency of Internet and SNS use, without distinguishing the purpose of this usage. As discussed above, citizens can surf the web for several reasons. However, in line with our theoretical framework, we are particularly interested in the on-line consumption of news. Accordingly, we create two additional variables.

Web 1.0 news source, is a dummy variable that takes the value of 1 if the respondent uses official websites of traditional media outlets or institutional websites (e.g., government) to gather political information, and the value of 0 otherwise. Conversely, Web 2.0 news source, takes the value of 1 if the respondent consumes political news from social media and SNS (e.g., blogs, Facebook, Twitter, Youtube, etc.), and the value of 0 if not.

These variables will allow us to test H1 and H2 and assess whether the consumption of news from new media has a different impact compared to social media.

We test these hypotheses while controlling for a set of control variables commonly used in the literature. To start with, we assess the consumption of news from other off-line sources through the variables TV news source, Radio news source and Press news source. Each variable takes the value of 1 if the respondent respectively uses TV, Radio or Press to get informed on political issues, and 0 otherwise. For similar reasons, we also consider how often individuals discuss political matters with friends or relatives through the variable political discussions, which varies between 0 (never) and 2 (very often). In addition, we take into account: the level of life satisfaction (i.e. how strong is the respondent's degree of satisfaction with life); the evaluation of national economy, i.e. the respondent's personal judgment on the state of the economy (which is equal to 1 if this is positive and equal to 0 if negative); the expectations toward national economy (which is equal to -1 if the respondent foresee a negative outlook, equal to 1 if his/her outlook is positive and equal to 0 otherwise); the evaluation of job status, i.e. the respondent's personal judgment on his job situation (which is equal to 1 if this is positive and equal to 0 if negative); the trust in political institutions (i.e. national or local government, parliament, political parties), which ranges between 0, when the respondents do not trust any of these 4 political institutions, and 4, when they trust them all. Finally, we control for socio-demographic traits like age, education (number of years spent in education), and gender, measured through the variable female (equal to 0 for males and 1 for females).

To test H3 we need to assess the extent of the divergence between the attitudes of each respondent and those of the whole community of social media users. Given that we are interested in the impact on the satisfaction with the democratic system, we measure such divergence taking advantage of the index of trust in political institutions described above, which is another measure of democratic support, and records the number of institutions that each respondent tend to trust. Then we create a new variable, Users disagreement, which corresponds to the absolute difference between the value of trust in political institutions for respondent i , and the average value of this index within the national community of social

media users. By doing this, we evaluate whether respondent i is surrounded by social media users that tend to trust (or not to trust) democratic political institutions more than him or, conversely, the population of social media users shows the same level of trust of respondent i . In this latter case, the likelihood that respondent i is involved in a flame when searching for political information on social media will be lower if compared to the previous context. This variable will be used to test the conditional effect of Web 2.0 news source for different levels of disagreement.

Finally, we also control for the homogeneity or heterogeneity of the online version of traditional media outlets compared to the viewpoints of the respondent. Unfortunately, we are not able to assess the content of news broadcast by each single media outlet. However, under the assumption that we can use the viewpoints of the audience as a proxy for the bias of the media (Ceron and Memoli 2015), we create the variable, Consumers disagreement, which corresponds to the absolute difference between the trust in political institutions of respondent i , and the average value of this index within the audience of Web 1.0 traditional media outlets. This variable accounts for the consumption of cross-cutting information. As such, we test it in interaction with Web 1.0 news source.

Table 1 summarizes the variables that will be employed in the analysis providing descriptive statistics.

5 Analysis and Results

As far as we are dealing with a binary dependent variable, we will test our hypotheses through a logistic regression with fixed effects by country, to account for the fact that there

Table 1 Descriptive statistics

Parameters	Min	Max	Mean	SD
Satisfaction with democracy	0	1	0.478	0.500
Internet usage	0	3	1.970	1.299
SNS usage	0	3	1.122	1.310
Web 1.0 news source	0	1	0.295	0.456
Web 2.0 news source	0	1	0.138	0.345
Consumers disagreement	0	3.6	1.096	0.746
Users disagreement	0	3.8	1.128	0.868
TV news source	0	1	0.884	0.321
Radio news source	0	1	0.439	0.496
Press news source	0	1	0.513	0.500
Political discussions	0	2	1.078	0.637
Trust in political institutions	0	4	1.291	1.446
Evaluation of national economy	0	1	0.276	0.447
Expectations toward national economy	-1	1	-0.258	0.727
Evaluation of personal job	0	1	0.644	0.479
Life satisfaction	-3	0	-1.130	0.822
Age	15	98	46.55	16.10
Education	0	72	19.44	4.968
Female	0	1	0.520	0.500

are several observations (individuals) nested in different countries.⁴ Table 2 displays the results of the analysis. Three models have been provided. In model 1 we include only the two independent variables related to web usage (Internet usage and SNS usage), along with our controls, without distinguishing whether individuals also consume news on-line. In model 2 we add Web 1.0 news source and Web 2.0 news source to account for the difference between these two realms. Finally, in model 3 we test H3 through the interaction between Web 2.0 news source and Users disagreement, while controlling for the consumption of cross-cutting information from the websites of traditional media outlets.

From model 1 we notice that the use of Internet or SNS, per se, does not affect the satisfaction with democracy. In fact the coefficients of Internet usage and SNS usage are not statistically different from zero. Conversely, the effect of variables related to the consumption of traditional news media (television, radio, press) is positive and significant. While web usage seems meaningful, the consumption of news on-line plays a role, as shown in model 2, though the sign of the relationship depends on the Internet source from which the user gathers information. In line with H1, we observe that the consumption of news from new media (e.g., institutional websites and on-line traditional media) is associated with a stronger satisfaction with democracy. This result is analogous to that of off-line traditional media and indicates that the stimuli coming from on-line or off-line traditional media sources are somehow similar. Conversely, the consumption of news from social media is associated with lower satisfaction with democracy. This confirms H2 and suggests that social media are radically different from on-line and off-line traditional media. Whereas the consumption of news from traditional media or new media seems beneficial for the democratic support, the consumption of news from social media is detrimental.⁵

Finally, model 3 tests the interaction between the consumption of news from social media and the level of Users disagreement of each citizen with the community of social media users. The coefficient of the interaction term is statistically significant and displays the expected sign. However, to determine whether we observed a substantively meaningful interactions (Berry et al. 2010), in Fig. 1 we display the marginal effect of Web 2.0 news source on satisfaction with democracy at different levels of Users disagreement. The negative impact of Web 2.0 news source holds only when Users disagreement is large enough, meaning that citizen i will be exposed to news broadcast by a community of users whose average trust in political institutions is markedly different (either higher or lower) from that of i .⁶ The stronger the disagreement between i and the social media community, the higher the negative effect of the consumption of news from that source due to the heightened risk of generating or incurring in flames. Conversely, we do not find any oppositional media bias given that the interaction between Web 1.0 news source and Consumers disagreement is not statistically significant. Accordingly, the overall effect of the consumption of news from online traditional media outlets on satisfaction with democracy does not seem to depend on the heterogeneity between the viewpoints of the respondent and those of the average consumer. This may happen because (in contrast with

⁴ Using random effects or a multilevel model does not alter the results.

⁵ This result is somehow similar to what reported by Dimitrova et al. (2014), which displays a positive effect of on-line new media on political knowledge whereas social media have no effect.

⁶ Note, however, that the direction of such disagreement does not seem to matter. Whether i is surrounded by users that are more confident or less confident in political institutions than him does not make a difference.

Table 2 Logit regression of satisfaction with democracy

Parameters	Model 1	Model 2	Model 3
Main independent variables			
Internet usage	0.029 (0.022)	0.022 (0.022)	0.023 (0.023)
SNS usage	0.024 (0.020)	0.028 (0.021)	0.031 (0.021)
Web 1.0 news source		0.087* (0.051)	0.041 (0.081)
Consumers disagreement			0.036 (0.059)
Web 1.0 news source X Consumers disagreement			0.034 (0.059)
Web 2.0 news source		-0.106* (0.062)	0.051 (0.097)
Users disagreement			-0.126** (0.052)
Web 2.0 news source X Users disagreement			-0.137** (0.066)
Traditional media controls			
Press news source	0.085** (0.041)	0.090** (0.042)	0.082* (0.043)
Radio news source	0.083** (0.040)	0.087** (0.041)	0.076* (0.042)
TV news source	0.132** (0.063)	0.138** (0.064)	0.169*** (0.065)
Constant	-0.677*** (0.171)	-0.676*** (0.171)	-0.635*** (0.179)
Other control variables			
Country dummies	Yes	Yes	Yes
Observations	17,442	17,442	16,572
Correctly predicted (percent)	77.54	77.63	77.64
Log pseudolikelihood	-8,181.94	-8,179.35	-7,757.24

Standard errors in parentheses

Significance (two tailed): * 0.1; ** 0.05; *** 0.01

The coefficients of country dummies and those of other control variables unrelated to news consumption have been omitted for clarity

Data available on request

the interactive nature of Web 2.0) the uni-directional architecture of Web 1.0 does not generate flames.⁷

These results seem to suggest that the clash between contrasting viewpoints and the occurrence of flames, more than the simple presence of anti-system news, could be the

⁷ Note, however, that this relationship should be better investigated using data that allow to assess the content and the slant of each single media consumed by the respondent.

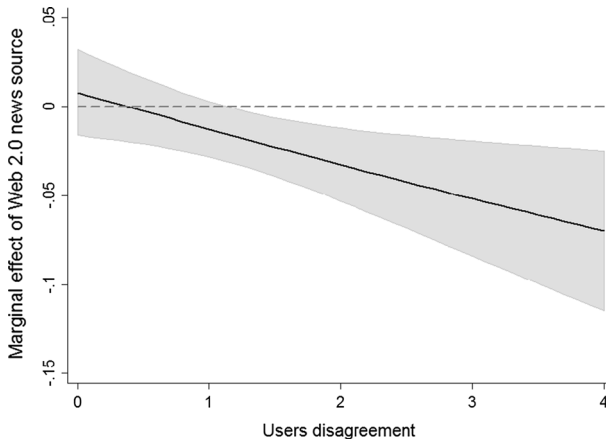


Fig. 1 Marginal effect of Web 2.0 news source on satisfaction with democracy at different levels of Users disagreement (with 90 % confidence interval)

actual cause of the lowered satisfaction with democracy reported by social media users. While recent works argue that disagreement within social networks fosters political knowledge, awareness, participation and collective deliberation (e.g., Scheufele et al. 2006), our findings side with previous studies (Alesina and La Ferrara 2000; Mutz 2002; Torcal and Maldonado 2014) and show a negative effect of heterogeneity on democracy, in the context of the unmediated social media arena. This reopens the debate on the potential of Internet as a place for e-democracy and deliberation.

6 Conclusion

By exploiting Eurobarometer data related to 27 European countries, the present paper shed light on the link between Internet and democracy focusing on the different effect of Web 1.0 (institutional websites and traditional new media) and Web 2.0 (unmediated interactive social media) on a citizen's likelihood to express satisfaction with how democracy works in his own country. On the one hand, we evaluate the impact of overall web usage, per se. On the other hand, we deepen the analysis to consider the relationship between the consumption of on-line news and the propensity to express satisfaction. To start with, our results display that the mere usage of Internet or social media seems unrelated with democratic support. What makes the difference is the consumption of on-line news. Even so, we find a critical difference between the effect of news gathered from social media and SNS compared to information retrieved from the on-line version of traditional news outlets or institutional and governmental websites.

Why do we find such discrepancy? The results suggest that, in line with our theoretical framework, new media still rely on a Web 1.0 format and broadcast information following a top-down approach similar to that provided by off-line mass media (Hindman 2009). As such, political information is diffused by the political elite that can slant news to preserve own interests and support the established democratic political system, allowing only limited room for alternative viewpoints. This will positively affect citizens' judgment on democratic responsiveness and satisfaction with democracy.

Conversely, the unmediated nature of user-generated content published on social media and SNS paves the way to a bottom-up stream of information and allows the circulation of alternative news and views without the mediation of dominant media outlets (Benkler 2006).

In a Web 2.0 that works like a public sphere, however, pluralism and freedom are not necessarily beneficial from democracy as long as users could be exposed to anti-system arguments without any editorial filter (Ceron et al. 2013). This can make them too much demanding of political institutions, without generating any virtuous circle (Norris 2011; Stoycheff and Nisbet 2014).

What is more, the interactive Web 2.0 can be also damaging. Far from making individuals more open-minded, the potential heterogeneity of the social media networks does not necessarily mean that online debates end up in public deliberation (Lee et al. 2014). A citizens that bumps into other users' opinion may discover that he is surrounded by a community that supports counter-attitudinal viewpoints and reports pieces of news aligned with those views. This disagreement can produce a flame and unveils the drawbacks of deliberation, producing a devaluation of politics and increasing skepticism toward democracy (Lee et al. 2014; Mutz 2002; Torcal and Maldonado 2014). In light of this, the existence of alternative viewpoints available on social media seems a necessary condition for disagreement, which in turn could be the causal mechanism linking the diffusion of information in the unmediated Web 2.0 with the decline in democratic support.

This study has some limitations. First of all, as any other work based on cross-sectional survey data, it does not provide evidence on the direction of the causal mechanism linking on-line news consumption and satisfaction with democracy. Although there are theoretical reasons to assume that the consumption of news has an effect on the evaluation of the performance of democratic governance, which is confirmed by a randomized field experiment (Baillard 2012), the causal mechanism could also work in the opposite direction, driving unsatisfied citizens to consume news from non-traditional sources of information. However, given the nature of social media, which is based on hyperlinks and hashtags that facilitate to a certain extent accidental exposure to political information (Chadwick 2009; Norris 2000; Putnam 2000; Tewksbury and Rittenberg 2012), we intuitively argue that the consumption of news is the independent variable affecting satisfaction with democracy. Nevertheless, future research should revert to longitudinal studies or experimental enquiries to substantiate the findings on the direction of the causal mechanism behind the relationships described in the present work.

Another limitation is linked to the variable disagreement, that could have been better operationalized using the respondents' ideological self-placement (Ceron and Memoli 2015), which unfortunately was unavailable in the survey. Finally, one last limitation lies in the existence of other potential alternative explanations, among which the idea that information from social media is damaging because not trustworthy. However, when testing the interaction between the consumption of news on social media and the degree of trust that each respondent attaches to such information, we do not observe any statistically significant result.

Despite the limitations discussed so far, the present study improves on the existing literature. Although some scholars still focus on Internet usage, our results confirm that the Internet effect on democracy holds only when the web is expressly used to gather news and retrieve information, in line with the literature (e.g., Boullianne 2009). In addition, this work sheds light on the differences between the top-down form of communication typical of new media and the unmediated bottom-up approach of social media. Finally, it outlines the potential negative effect of social media that can foster anti-system attitudes and originate flames, warning against the potential drawbacks of an unmediated deliberative public sphere.

Acknowledgments A previous version of this paper has been presented at the XXIII Ipsa World Congress (19–24 July 2014, Montréal). The authors wish to thank the participants as well as the journal editors and the anonymous reviewers for their valuable comments.

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