Marginal, but significant
The impact of social media on preferential voting

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Abstract

Candidates increasingly make use of social media in election campaigns. However, little is known about the effect this increased use of social media has. Candidates themselves seem to believe it makes a difference, but is this the case? This paper seeks to examine whether or not candidates that make use of social media in their personal campaign get a significantly higher number of (preference) votes. Social media can also have an indirect effect. In this case social media usage will have a positive effect when journalists who follow a candidate actually write about a candidate's messages and the message is thereby presented to a broader audience. To carry out our analysis, we make use of a unique dataset that combines data on social media usage and data on the candidates themselves (such as position on the list, being well-known, exposure to the old media, gender, ethnicity and incumbency). Our dataset includes information on all 493 candidates of the ten parties that received at least one seat in the Dutch 2010 election. It turns out that there is a small but significant direct effect of social media usage.

Introduction[1]

Many political scientists and pundits alike feel that contemporary democracies are going through tough times (Norris, 1999; Pharr and Putnam, 2000; Dalton, 2004; Mair, 2006; Norris, 2011). Their warning calls are not new – already in 1975 Crozier, Huntington and Watanuki voiced similar concerns – but the content has shifted significantly. Indeed, nowadays support for democracy as such is greater than ever, but there are other troubles that haunt contemporary democracies. One of the most outspoken diagnoses has been formulated by Peter Mair (2006). According to Mair (2006:32, 45), 'citizens are withdrawing from conventional political involvement' while at the same time 'there exists a clear tendency for political elites to match citizen disengagement with a withdrawal of their own'. Indeed voter turnout and party membership are declining, voter volatility is rising steadily and political parties are said to become ever more disengaged from society (Mair, 2006; Katz and Mair, 2009). This process of mutual withdrawal leads to a hollowing out of politics and a dramatic decline of the legitimacy of political parties and institutions (see also Norris, 2011). All of this would be detrimental for democratic politics, which is built on the foundation of legitimacy. How to solve this problem?

Political elites, scholars and pundits have suggested a myriad of solutions,[2] one of them being an increased personalization of politics. It has been noted that politicians, and especially political leaders, increasingly try to bypass the traditional communication through parties and establish direct links with citizens (Poguntke and Web, 2005; Karvonen, 2010; Renwick and Pilet, 2011). By doing so they are stressing a sense of personal accountability instead of accountability through parties. Personal accountability has thus far been a 'neglected dimension' of the political system (Colomer, 2011), but research by Farrell and McAllister (2006) shows that it has a significant and positive effect on people's satisfaction with democracy. Hence, it may well make sense for politicians to walk this route. They also have more opportunities to do so as the rise in

[1] We explicitly want to thank the people from politiekonline for their generous help and for providing us with data on Twitter and journalists who follow candidates. Their feedback on our preliminary results also shaped this paper. All errors that remain are our own.

[2] Such as: a move to a more deliberative democracy, electoral reforms and attempts to change the media structure and calls for expert government (Dryzek, 2001; Hibbing and Theiss-Morse, 2002; Cain, Dalton and Scarrow, 2003; Dalton, 2004; Zakaria, 2007; Norris, 2011).

the popularity of social media presents politicians with the opportunities to forge personal ties with voters. Barack Obama's 2008 Presidential campaign is perhaps the most well-known example of a politician using social media to speak to citizens directly (Crawford, 2009).

However, it remains to be seen whether the successful Obama campaign is the exception or the rule. After all, the American political system was already a very personalized political system. Moreover the context is one of weak parties, a long-standing tradition of grassroots campaigning and relatively liberal campaign finance rules. In that sense, it was a most likely case for social media to have an impact. One should thus be careful when generalizing findings on the Obama campaign (cf. Gibson, 2009). Unfortunately empirical work on the subject is rare and this holds even more for statistical studies.[3] As a result, the impact of social media usage on politics is 'too often reduced to dueling anecdotes' (Shirky, 2011:2). For now the question remains: what kind of impact do social media have?

This study enters the debate on the impact of social media by providing both a general theoretical framework outlining different types of impact and a large-scale statistical analysis of the effect of social media in the Dutch 2010 election.[4] We first present the general theory on why and how social media may influence politics and preference voting in particular. We outline four alternative hypotheses, ranging from an optimistic to a pessimistic expectation of the impact of social media. Afterwards we carry out our analyses. The analyses rest on a unique dataset that includes social media usage of all the candidates that stood for the ten biggest parties in the 2010 elections. It includes, amongst other, information on their number of followers, the number of messages they sent and the journalists that followed them. We first analyze whether Dutch politicians really reach out to citizens and provide descriptives on their social media usage.

[3] The little work that has been done on social media or the web 2.0 mainly focuses on majoritarian democracies. Work by Rackaway (2007) on the US found that web 2.0 tools had a significant impact on the votes a candidate received, whereby the more interactive tools yielded the better results. Gibson and McAllister (2011) on Australia found that web 2.0 campaign tools have an effect on the number of votes a candidate receives, but that the effect is moderated by the type of web tool used and party using them. Another noteworthy exception is a study by Dimitrova, Shehata; Strömbäck and Nord (2011), who found no significant effect of social media on political knowledge, but did observe a positive effect of social media usage on offline political participation.

[4] In the methods section we will discuss why we chose the Dutch 2010 case.

Afterwards we embark on a causal analysis of the number of preference votes the politicians received. We control for 'usual suspects' such as incumbency, sex and position on the list and show that some social media, most notably Twitter, have a small but significant effect, in particular when candidates update and use their accounts. Lastly, we relate these findings to the broader discussion on the mutual disengagement of citizens and political parties.

Democracy, personalized electoral systems and social media

Analyses of the 'crisis of democracy' have focused almost exclusively on the failure of parties to connect with citizens and claimed that parties and their leaders are ever more insulated from the ordinary realities of constituents' lives (Mair, 2006). Mair himself (2006:48) pointed to an increasing role for individual politicians -a shift from parties to persons- but did not welcome this development. Other scholars, most notably Farrell and McAllister (2006) are far more positive and point out that more focus on individual candidates (instead of parties) leads to more satisfaction with the way democracy works. Parties may have fit well to the political culture of the 1950s to 1980s, but persons seem to be more aligned with the contemporary zeitgeist. The question obviously remains to what degree a focus on personal accountability is replacing (or making up for the loss of) partisan accountability. Two more or less simultaneous trends suggest that personal accountability may well be taking over from partisan accountability, namely the personalization of electoral systems and the spread of social media.

Some political systems have always been more centred on personal accountability. Specifically, in first-past-the post electoral systems elections are a race between *candidates*, whereas elections in a proportional setting are more of a race between *parties*. Mair's analysis was specifically focussed on Western Europe, where proportional electoral systems are the rule. In such systems parties perform a crucial role. However, there are signs that he underestimated the role of personal accountability as well as the trend towards more personalisation in list-PR systems. In virtually all proportional systems, voters are allowed to cast a preference vote for one or more candidates. Some countries, such as Switzerland, Luxermburg and Urugay, have an open list system and voters decide who gets a seat. As such elections in these countries are as

much about which candidate gets elected as they are about which party gets more seats. Most European list-PR systems, however, use a flexible list system (Colomer, 2011:11). Many of them have recently implemented electoral reforms that strengthen the role of the voter in determining who gets the seats (Karvonen, 2010; Renwick and Pilet, 2011; Jacobs and Leyenaar, 2011). Even in electoral systems that use closed lists personal accountability may matter. Recent research by Riera (2011) has shown that preferential voting increasingly plays a role in closed list electoral systems. All in all, 'there is good evidence for thinking that European electoral systems are undergoing a gradual process of personalization' (Renwick and Pilet, 2011: 28). This also means that candidates have *more incentives* to cultivate personal accountability. It strengthens their position vis-a-vis the party's electorates and makes them more independent (Hazan and Rahat, 2010). The trend towards the personalization of electoral systems has been complemented by the spread of social media (Jackson and Lilleker, 2009). Such media differ from the old media in that politicians can directly get in touch with potential voters through online tools such as facebook and Twitter. Such media also allow for interactivity and 'listening', which can create strong ties between a specific candidate and his or her followers (Crawford, 2009). Hence, they allow a politician to create and cultivate a personal link with (a group of) citizens. The additional advantage of social media is that they are cheap and relatively easy to use. The opportunities that social media offer may thus strengthen this general trend towards more personalized political campaigns and more personal campaigns more in general.

To sum up, Mair is probably right that *parties* have withdrawn from the political process, but he may well have underestimated the efforts by *politicians* as a result of a growing emphasis on personal accountability. After all, politicians increasingly have (a) incentives to reach out to citizens themselves and (b) have the technological means at their disposal to do so in a cheap and cheap and easy way. However, it remains to be seen to what extent politicians respond to these incentives and make actual use of the opportunities social media offer them. If we are to see any impact of the trends sketched above, it is in the realm of campaigns and elections. After all, elections (and campaigns) are 'the central representative institution that forms a link between people and their

representatives (Gallagher, 2011:182). If we do not see the impact there, we will see it nowhere.

The impact of social media on preference voting

As Dick Morris (2002:XIV) puts it, "[i]n each political generation, the first to master a new form of communication technology gains a huge advantage." Without a doubt Barack Obama can be cited as the first to genuinely have mastered the full potential of social media. Indeed his social media superiority seems to have been important in the 2008 Presidential election (Zhang, e.a., 2010). However, by now it is very 'bon ton' for a candidate to use social media. With the use of social media becoming mainstream rather than exceptional, this pure and simple competitive advantage is unlikely to play a role any longer. One should thus ask: what is the effect of social media usage in a context where a significant part of the candidates uses them?[5] One could think of at least four effects: (1) a direct effect of the number of followers;[6] (2) an interaction effect of the number of followers and actual social media usage; (3) an indirect effect whereby social media actually increase old media coverage of a candidate, and lastly (4) no effect at all. All four effects will be discussed below.

(1) A direct effect. The most optimistic expectation is that even minimal social media use will already have a direct effect on the number of preference votes a candidate receives. After all, social media allows for 'personalizing relationships' and offer 'the capacity to build a sense of camaraderie and connection with a wide constituency' (Gibson, 2009:292; Crawford, 2009:530). Social media are particularly suited for a more personal and informal relationship with voters. They are excellent means to show that they are 'just like the rest of us' (Crawford, 2009). Obviously if no voter follows you, you cannot show that you 'are like them'. Therefore, in its simplest form the number of preference votes depends on the number of followers. Specifically, one can expect that:

[5] It should be noted that our dependent variable is voting for a candidate, and not campaigning for a candidate. The Obama campaign was very successful in convincing citizens to set up their own Obama campaigns (Gibson, 2009).

[6] We use the word 'follower'in a broad sense, not to refer merely to Twitter followers. As used here it means all people being social media 'friends' or 'followers' of a candidate.

Hypothesis 1. The larger the group of followers of a candidate, the more preference votes (s)he receives.

(2) An interaction effect. However, some scholars have stressed that merely having a lot of followers does not do the trick. The mere 'pretence of presence' –just having an account, but not using it– is not enough to convince people to vote for a candidate (Crawford, 2009:530). Indeed, such 'political zombies' are unlikely to ignite much voter passion (Wilson, 2009). This does not mean that social media per se have no impact, but rather that followers only yield an electoral dividend when a candidate actively mobilizes them. A candidate thus needs to make actual use of the platform for the effect to materialize. Hence, one can expect the following interaction effect:

Hypothesis 2. The more a candidates makes use of her/his social media account, the larger the effect of the number of followers on the number of votes (s)he receives.

(3) An indirect effect. Social media are not the only instrument in the campaigner's toolbox. Research on social media sometimes studies them in isolation (see for instance Gil De Zúñiga, Puig-I-Abril and Rojas, 2009; Zhang e.a., 2010), or alongside each other (Wright and Hinson, 2009; Dimitrova e.a., 2011). However, to the best of our knowledge, thus far no study has assessed the impact of social media *on old media*. This is especially pressing as social media are not simply a 're-expression of existing types of involvement' (Gibson, 2009:293; see also Wilson, 2009). More importantly, quite often journalists are amongst the most active consumers of social media. Especially Twitter fits the journalist's needs because of its format of short messages, the 'quotability'. But how likely is it that journalists use social media as a source of information? Some journalists have complained that using Twitter as a source of information is 'like searching for medical advice in an online world of quacks and cures' (Goodman, 2009). However, for political journalists who are often looking for quotes about policy positions and not factual information this is far less of a problem. Indeed, the speed, 'bluntness' and brevity make social media messages often well-liked sources of information. Hence, it may well be that social media are actually a 'new door into an old house', or a means of

getting into the old mass media, which in turn may increase the media coverage and number of votes a candidate receives. What matters most in such a case is not the number of followers per se, but the number of *journalists* amongst those followers. Hence one could expect that:

Hypothesis 3. The more journalists who follow a candidate, the more preference votes (s)he receives.

4. No effect. Until now, we have assumed that social media have an effect. However, this need not necessarily be the case. Indeed some researchers are quite skeptical and believe social media will not make the difference. For instance, in their assessment of the social media use of British political parties, Jackson and Lilleker (2009:247) find that '[p]olitical parties still seek to a significant extent to control the communication process' and as a result, social media are merely a 'cyber safety valve'. In such cases, social media at best reinforce rather than challenge normal political practices (cf. Gibson and McAllister, 2011). Others have also pointed to the 'ineffectiveness' of the social media. They have contended that social media are only used by casual participants who seek social change through low-cost activities (Shirky, 2011:7). After all, it is one thing to 'click' on a follow button, but it is an entirely other to get out to vote for that person as well. Lastly, one could also advance that nowadays social media are used by all candidates, and given that everybody does it, it may well make no difference anymore. Hence, based on this line of reasoning, one can expect that:

Hypothesis 4. The use of social media has no impact on the number of preference votes a candidate receives.

Methods, data and case

In this section we will outline the main variables included in our analyses. Before we do so, we first want to sketch the Dutch political context as this is important for our choice to study the Dutch 2010 elections and thereby the generalizability of our results.

1. The political institutional context of the Netherlands. As our analysis focuses on the 2010 Dutch Lower House elections, we will shortly outline the Dutch political system with a particular focus on the ballot structure (see Table 1.). Since it was introduced in 1917, the Dutch list-PR electoral system has remained fairly stable. Voters are allowed to cast one vote in one of the 19 electoral districts. They can only vote for a candidate (within a party list). The votes that are cast for all candidates on a list are added up and this total number of votes determines the number of seats that a party gets. De facto, the distribution of the seats happens at the national level and the Dutch electoral system functions as if it only has one electoral district (cf. Andeweg, 2005).

Table 1. Main institutional characteristics of the Dutch political system (2010)

Topic	Description
Overall form of government:	Parliamentary system
Parliament layout:	Two Chambers: • Lower House ('Tweede Kamer'; 150 MPs) • Upper House ('Eerste Kamer'; 75 MPs)
Electoral system*:	List-PR system; de facto one single district with an electoral threshold of 0.67%
The act of voting:	Each voter has one vote. People can only vote for one candidate within a party list
Preference voting:	From 1997 onwards; a number of votes equal to 25% of the electoral quota is needed for a candidate to be elected out of the list order. In 2010: 15.694 votes.

* From here on we focus our attention to the lower house.

The votes also determine which candidates get the seats. Whenever a candidate crosses the 'preference threshold' of 25% of the electoral quota, (s)he is automatically elected, provided that the party has a seat available (Jacobs & Leyenaar, 2011).[7] Afterwards the remainder seats are distributed according to the list order. The number of preference votes thus has priority over the list order, as a result the system has been characterized as 'semi-open', a characterization that makes the Netherlands a typical case when it comes to ballot structure (Colomer, 2011:10). In 2010 the Dutch preference threshold was at 15.694 votes. Thirty candidates crossed the threshold, of which two would not have been

[7] The candidates who crossed the preference threshold move in front of the line, but if a party has no seats, these candidates do not conquer a seat. The candidate with the highest number of preference votes gets served first.

elected based purely on their place of the party list (own calculations based on www.parlement.com).[8]

2. Method and data. No less than 18 parties fielded candidates in the Dutch parliamentary elections on 9 June 2010. However, only ten of these received at least 0.67% of the votes – and thus received at least one seat.[9] We use a dataset that includes all the candidates of these ten parties. In total, we gathered data on 493 candidates. We made use of the archives of the Dutch electoral management body (www.kiesraad.nl) and supplemented these with Twitter data provided by Politiekonline.nl, information provided by the Dutch political parties and newspaper data in the Dutch newspaper archives. The Hyves data were collected by ourselves. To examine the impact of social media, we use an OLS regression analysis. Our *dependent variable* is simply the absolute number of preference votes a candidate received.

Our main *independent variable*, social media, was operationalized by using two different social media platforms, namely the use of Twitter and Hyves. Hyves is a Dutch local variant of facebook.[10] We registered the number of Hyves and Twitter followers each of the candidates had. These independent variables allowed us to assess the first and fourth hypothesis. To examine our second hypothesis, which expected an interaction effect between the number of followers and social media use, we used the number of tweets each candidate sent out (from 27 April to 8 June 2010) as provided by Politiekonline and we registered the number of updates she or he placed on her or his Hyves profile from 26 May to 2 June 2010. Our third hypothesis deals with the number of journalist followers a candidate has on Twitter. We listed the 15 most prominent journalists, covering a broad range of media, and checked how many of them followed a given candidate.[11] To flesh

[8] Given that the Dutch electoral system is very proportional and de facto only has one district, the number of electable positions on the list is fairly high. As a result, most popular candidates would get elected based on their position on the list anyway. However, a high number of preference votes is important nonetheless as it grants candidates independence from the party and increases their power base within the party.

[9] The following parties received at least one seat: VVD, PvdA, Partij voor de Vrijheid, CDA, SP, D66, GroenLinks, ChristenUnie, SGP, Partij voor de Dieren (www.kiesraad.nl).

[10] Facebook is active in the Netherlands, but in June 2010 it was still significantly smaller than Hyves, which is why we chose to include Hyves in our analysis instead of facebook (Oosterveer, 2011, http://www.marketingfacts.nl/berichten/20110720_facebook_nog_niet_groter_dan_hyves_in_nederland).

[11] We were unable to gather data on the number of journalists that follows a candidate on Hyves, but given that it is especially Twitter is useful to journalists given its short messages and instant appeal, one can

out the causal mechanism, we also gathered data on the number of news items that explicitly mentioned a candidate in combination with twitters or tweets.

Regarding the *control variables*, we gathered data on the 'usual suspects' in preference voting research, namely a candidate's position on the list, incumbency, gender, ethnicity and whether a candidate was well-known well before the elections or not (Darcy & McAllister, 1990; McDermott, 1997; Krebs, 1998; Geys & Heyndels, 2003; Thijssen & Jacobs, 2004; Lutz, 2010; Wauters, Weekers & Maddens, 2010). Appendix 1 presents all the variables and their descriptives. Dummy variables for each party and interaction terms of these dummies with the list puller positions were included as well, in order to control for party specific effects, including the number of listed candidates and the popularity of the specific list puller.

Descriptives: Are politicians reaching out to citizens?

Before we embark on our explanatory analysis, it is obviously important to ask the basic question first: did the candidates use the social media or are they overwhelmingly disengaged from the citizens as Mair would predict? As Table 2 shows, a majority of the candidates, 57.6%, had either a Hyves or a Twitter account and 22.5% of them actually had both. One could thus say that the candidates did try to reach out to the citizens.[12] What about the citizens? The number of citizens that follows a candidate is fairly low, but there are notable exceptions. On average, a candidate with a Twitter account has 4,924 followers; while a candidate with a Hyves account on average has 1,981 followers. As the high standard deviations indicate, the differences between the candidates are sometimes quite substantial. Nevertheless it is safe to say that most candidates have a relatively low number of followers, as is also illustrated by figures 1 and 2, which show

expect that if we find no significant effect for the number of journalists following the Twitter account of a candidate it is very unlikely that this effect will materialize for the journalists following his or her Hyves account.

[12] Obviously, this is somewhat of a most-likely test. It remains to be seen whether politicians also reach out in-between elections. Nevertheless assessing whether politicians reach out during the campaign is a necessary first step in the analysis. Additionally it shows that personal accountability is indeed in the back of the heads of a substantial number of candidates.

Table 2. Social media presence

Social media (n=493)		
	Hyves	No Hyves
Twitter	111 (22.5%)	57 (11.6%)
No Twitter	116 (23.5%)	209 (42.4%)

Table 3. Average followers (Hyves/Twitter only data)

Social media	Average followers	St. Deviation	Maximum
Twitter	4,924	13,846	122,374
Hyves	1,981	15,104	199,288

Figure 1. Distribution of Twitter followers

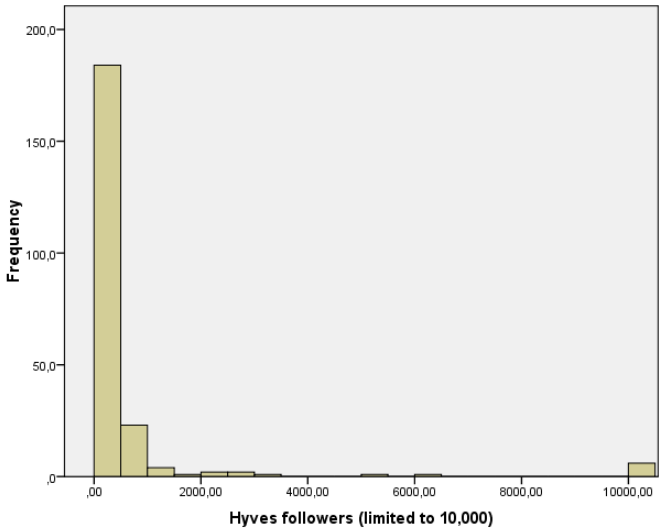
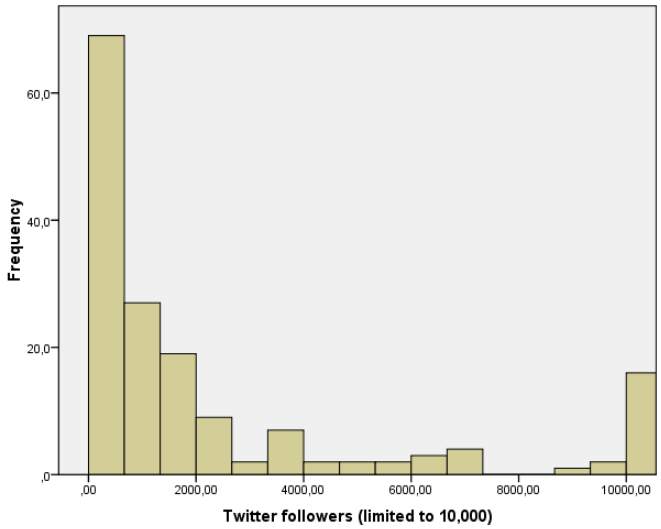


Figure 2. Distribution of Twitter followers



the distributions of the followers. By themselves these numbers of followers are not enough to cross the Dutch preference threshold and neither will they substantially reduce any gap between citizens and politicians.[13] Yet all of this does not necessarily mean that social media are irrelevant. For instance, one could argue, as Gibson and McAllister (2011:230) do, that a two-step effect may well be operating: social media followers are just the first step. In a second step, these followers will act as 'ambassadors' and use information received from the social media to influence their friends and peers.

Empirical results

One way of assessing the impact of social media is to look at the impact they have on the number of preference votes a candidate receives. Table 4 presents the results of our OLS regression analyses. The effect of the so-called 'list-puller', the first candidate on a list, clearly dwarfs all other effects: it is robust and remains consistently at a very high level. This should come as no surprise as the Dutch electoral system does not allow casting a party vote. The first place on the list is reserved for the party leader and '[v]oters who have a preference for a party but not for any particular candidate usually cast their vote on the first candidate on the list' (Andeweg, 2005:494). As a result, the list-pullers receive an extremely large number of preference votes compared to the other candidates on the list. However, once the list-puller effect is filtered out, some other effects stand out. The other control variables, with the exception of incumbency, all perform as is expected.[14] But what about the social media variables?

The social media variables seem to have significant effects. When included in separate analyses, both the number of Hyves and Twitter followers has a positive significant effect. However when both are included at the same time, only the effect of Twitter

[13] The fairly low numbers are consistent with findings in other countries (e.g. Hoff, 2010; Gibson and McAllister, 2011).

[14] The incumbency variable is mostly used in American research and is said to have a substantial positive effect. However, in a proportional electoral system with multi-member districts, the incumbents are routinely placed higher on the list. Hence most of the incumbency effect is probably absorbed by the latter variable. A second cluster of variables that most likely absorbs a substantial part of the effect are being well-known and the number of newspaper articles a candidate featured in the year before the campaign. Moreover, a list-PR system produces a lot of lesser-known incumbents as they have no local constituency. Combined, this means that the effect of incumbency is based on the lesser-known incumbents. Hence, it should not come as a surprise that the effect of incumbency is not significant here.

Table 4. Social media and preference votes (OLS Regression)

	Model 1: Controls		Model 2: Direct effect Hyves and Twitter		Model 3a: Interaction effect Hyves		Model 3b: Interaction effect Twitter		Model 4: Indirect effect	
	Coef.	Stand. coef.	Coef.	Stand. coef	Coef.	Stand. coef	Coef.	Stand. coef	Coef.	Stand. coef
(Constant)	1,353.005		1,552.688		867.818		1,506.344		1,345.375	
Hyves (H1)			1.249	*,093*	1.099	.082				
Twitter (H1)			.318***	*,020*			.258*	.018	.630***	.043
Interact. Hyves (H2)					1.092*	-.005				
Hyves use (H2)					-298.725***	.083				
Interact. Twitter (H2)							.002***	.040		
Twitter use (H2)							-5.962*	-.004		
# Journalists (H3)									-141.078	-.002
Incumbency	-1,450.145	*-,005*	-1,639.910	*-,005*	-990.940	-.002	-223.377	-.001	-32.776	.000
Well-known	4,054.491***	*,011*	2,757.624*	*,007*	4,408.882**	.009	1,381.891	.003	999.485	.002
# Newspaper art.	23.902***	*,049*	20.160***	*,041*	8.933	.016	10.508***	.017	12.341***	.020
Position	-73.110**	*-,010*	-73.764**	*-,010*	-78.443**	-.008	-33.862	-.003	-34.730	-.003
End of list	-205.729	*,000*	305.397	*,000*	679.563	.001	276.321	.000	342.904	.000
List-puller	1.277E6***	*1,341*	1.179E6***	*1,238*	1.236E6***	1.295	#		#	
First woman	43,293.485***	*,043*	44,756.298***	*,045*	39,838.502***	.033	#		#	
Woman	303.444	*,001*	393.083	*,001*	1,526.616*	.004	449.779	.001	209.887	.001
First ethnic cand.	9,485.345***	*,009*	9,157.157***	*,009*	407.245	.000	-4,924.394	-.003	-3,942.161	-.002
Ethnicity	1,102.526	*,002*	1,000.410	*,002*	1,568.450	.002	1,693.037	.002	1,385.913	.001
Adjusted R^2	.998		.998		1.000		1.000		1.000	
N	493		493		227 (Hyves only)		168 (Twitter only)		168 (Twitter only)	

Note 1: We also included 10 party dummies and interactions between the party dummies and the list-puller variable as a set of technical control variables. These are not included here as they only filter out the party effects. As a result of these controls, the adjusted R squares are extremely high: most of the variance is due to the list-pullers. If we drop these variables, the R^2 drops to 0.56. # Due to extreme multicollinearity, models 3b and 4 did not include 'list-puller' or 'first woman', in other words the effects of these variables have been completely captured by the other control variables, because only people with Hyves or Twitter accounts are used in these models. * = p < .05 ; ** = p < .01 ; *** = p < .001

remains significant. As mentioned earlier, 22.5% of the candidates has both a Hyves and a Twitter account. As a result, the Hyves effect somewhat captures the Twitter effect when Twitter is not included in an analysis. The direct effect of having a Twitter account is significant, but fairly limited: each 100 followers yield some 32 extra votes. Given that the average Twitter user has 4,924 followers, this means that he or she would receive 1,576 extra votes, or one-tenth of the preference votes needed to cross the preference threshold.[15] Not bad, but fairly limited all the same. Regarding *Hypothesis 1*, we can thus say that there indeed seems to be a limited direct effect of the number of (Twitter) follower on the number of preference votes.

In a third analysis we examined whether there is an interaction effect between the use of social media accounts by candidates and the influence of the number of followers they have on the number of preference votes they receive. As including all candidates who do not have an account would bias the findings, we only select the people with an social media account. Because these people are different for Twitter and Hyves, we conducted two separate analyses. The analyses refine our previous findings: each 100 Twitter followers now add only some 26 extra votes, but each tweet during the campaign period adds another 0.2 extra vote per 100 followers.[16] This effect is highly significant. Given that the candidates on average sent out 112 tweets, this means slightly more than 22 votes extra per 100 followers.[17] Hence, the average tweeting candidate got almost double the preference vote bonus when compared to a 'Twitter zombie'. Similar results are found for Hyves users, though the effect seems somewhat larger. However, given our previous findings we should be careful interpreting these results,[18] and the interaction is only significant at the 5% level. Each 100 Hyves follower add some 110 extra votes, but each extra status-update during the campaign adds another 109 votes per 100 followers. Given that on average a candidate updated his or her Hyves profile once a week, this means that during the campaign, which lasted six weeks a bonus of 600 votes per 100 followers.

[15] It needs to be stressed though that using the average offers the 'best case scenario'. Many candidates had far lower numbers of followers as the average is biased towards the upper end (cf. Figure 2).
[16] The campaign started on 27 April and lasted until 8 June 2010.
[17] The maximum number of tweets was 780.
[18] Some of the impact of Twitter use may well be included in the Hyves effect. Moreover, the Hyves results are less certain, as is indicated by the lower significance of the effects.

The Hyves interaction effect is thus even more pronounced than the Twitter one: actively using one's Hyves account yields a significant preference vote bonus.[19] All in all it seems that *Hypothesis 2* is corroborated as well: those candidates who actively use their accounts reap the harvest of social media, while non-active users enjoy far smaller benefits.

Our last model investigates the impact of journalists amongst a candidate's followers. After all, it may well be that social media have an indirect effect (as well): Twitter can be a 'new door to an old house', or a way to get in the old media. The causal mechanism would then work as follows: candidates tweet; journalist followers pick up the tweets; the journalists use the tweets in their articles; this in turn increases the media exposure of a candidate which in turn increases the number of preference votes. If this causal mechanism is at work, we should see a positive effect of the number of journalists who follow a candidate, and possibly a reduction of the direct effect of social media after including the number of following journalists. However, no such effects are found.[20] It seems that at best the indirect effect has no added value and replaces existing effects. *Hypothesis 3* thus needs to be rejected.

To sum up, in contrast to what was expected in *Hypothesis 4*, social media do seems to have an effect on the number of preference votes a candidate receives. This effect seems to be most pronounced in the case of Twitter. There is a limited direct effect of having a Twitter account, but using twitter adds a significant preference vote bonus to this direct effect.

Conclusion

Summary and implications

Political parties in established democracies are viewed with growing distrust (Dalton, 2004:33). Though the decline has stopped from the 21st century onwards, trust in political parties now hovers around very low levels (Norris, 2011:76). One could even say that 'the party is over'. Most notably Peter Mair (2006) has argued that citizens and political

[19] Some caution is needed though: only 47 candidates updated their profile, so the data are very skewed.

[20] This does not mean that journalists do not use tweets in their articles: 108 candidates who use Twitter have journalists amongst their followers, and 70 of them saw their tweets return in at least one newspaper article. Most likely, however, this is not *extra* media exposure. Even if we also include the number of newspaper articles which mention a twitter and the candidate as an independent variable in Model 2 no significant effect is found.

parties are trapped in a vicious circle of mutual disengagement. However, this picture ignores the increasing emphasis on personal accountability in contemporary politics. The number of preference votes has significantly increased in many list-PR established democracies (which were the focus of Mair's gloomy message; for more on preference voting see Karvonen, 2010:62). This in turn creates increased incentives to cultivate a personal vote. The opportunities to embark on personal campaigns have also increased by the advent of social media, which are a cheap and powerful means to get in touch with voters. This study examined whether politicians 'reach out' to citizens and whether citizens are mobilized by these efforts and vote for the candidate. To do so we used a unique dataset on the Dutch 2010 parliamentary elections, which blended data on the social media use of candidates with data on their personal characteristics.

Dutch politicians themselves indeed seem to be willing to move towards more personalized accountability. A decent majority of them has either a Hyves or a Twitter account. Citizens on the other hand seem to be more reluctant to get in touch with politicians: most candidates only had a limited number of followers. Our OLS-regression analyses also showed that by far the largest chunk of preference votes is explained by the position on the list. Especially list-pullers perform extraordinary well. Given the Dutch electoral system, which does not allow a voter to cast a vote for a party, this seems to suggest 'the party isn't over yet'. However, our analyses also showed that social media do have a significant (albeit rather limited) added value. Existing research on political campaigning is currently shifting towards a focus on online campaigning and some have even included the effect of web 2.0 features (cf. Gibson & McAllister, 2011). Nevertheless, to the best of our knowledge, no study has examined the impact of Twitter on voting behaviour thus far. This may well overestimate the impact of social media such as blogs or facebook. Indeed in our study the Hyves effect disappears when controlling for Twitter use. It does seem that not all social media are equal, and especially Twitter may well be more equal than others. If we move towards studying the impact of the web 2.0 on voting, Twitter clearly deserves a place in our set of independent variables.

Next to this general finding, our study found that using social media adds a significant extra bonus, but having many journalists amongst your followers does not have a significant effect. It seems that journalists only follow candidates that they are already

interested in and probably would write about anyway. All in all, the answer to our research question is that social media, and Twitter in particular, have a direct but limited effect on the number of preference votes a candidate receives. This effect is strengthened by how often candidates use social media.

Generalizability and alternative explanations

To what extent can these findings be generalized? Let us first start with the internal validity of the analysis. One may well advance that our findings are biased by an omitted variable, namely the evaluation of a given candidate. The causal mechanism would then be as follows: you follow the politician you like and you vote for the politicians you like. Obviously it is very hard to control for this variable when using candidate data – the danger of ecological fallacies looms here. However, our own findings can be used here. Our analysis of the interaction effect is particularly relevant here, especially in the case of Twitter. The fact that the main effect of Twitter followers is significant means that some followers vote for a candidate regardless of whether the candidate uses Twitter or not. It is rather unlikely that the majority of these people are convinced merely by the fact that a candidate has a Twitter account. Hence, this group of followers was probably already convinced before it started following the candidate and corroborates the alternative explanation. However, the interaction effect itself was also significant, which suggests that politicians can actually 'convince' citizens to vote for them by using Twitter.

Regarding the external validity of this study, the main concern may well be that the Netherlands as a country is not representative. Until now, most research has been done on majoritarian democracies such as the US (Rackaway, 2007; Crawford, 2009; Gibson, 2009; Zang, e.a., 2010), the UK (Gibson, 2009; Jackson and Lilleker, 2009) or Australia (Wilson, 2009; Gibson and McAllister, 2011) or the very personalized (and rare) STV electoral system of Ireland (Suddulich and Wall, 2010). All these countries use very personalized electoral systems, which may limit the applicability of the findings to list-PR settings. Most established democracies, and many European ones in particular, use such a list-proportional electoral system. The Netherlands have one of the most proportional electoral systems, but regarding its ballot structure, the semi-open list system, it is a typical case (cf. supra). As such, it is likely that our findings can be generalized to other

list-PR established democracies. Without a doubt, the coefficients will be different in other countries, but the significant effect will most likely be found elsewhere as well.

The direction of future research

Some questions still remain. Most importantly, it has been stressed by some that the message is important as well (Crawford, 2009; Wilson, 2009). Follow-up research should thus focus *what* candidates send out, the content of the messages, and examine what exactly it is that convinces followers. A 'consultant-driven' approach to social media whereby 'lackeys' place updates that are merely generic and informational are unlikely to ignite a fire in the hearts of their followers (Wilson, 2009). A second element of the content that may matter is the interactivity. Do candidates who 'listen' and respond to voters messages do a better job? Barack Obama famously ignored its followers in that his campaign did not reply to them (Crawford, 2009:530), but it may well be that others do not get away with it so easily. If we want to assess whether social media can reverse the process of mutual disengagement, it is important to know what type of 'engagement' by politicians works best. A second area of future research concerns *when* candidates send out their updates. Do politicians keep in touch with their audiences once they are elected or are they purely instrumental in their use of social media? All of this matters as only reaching out to citizens when elections are nearby most likely undermines the citizens' trust in politicians. Temporarily reaching out will not stop the process of 'mutual disengagement'. The real litmus test is whether politicians keep in touch with citizens in-between elections.

Appendix 1. Descriptives

Variable name	*Description*	*Range*
Hyves	Does the candidate have a Hyves account?	0 – 1
Twitter	Does the candidate have a Twitter account?	0 – 1
Hyves use	Number of updates made to the Hyves account (27 May - 2 June 2010)	0 - 32
Twitter use	Number of tweets were made during the campaign (27 April - 8 June 2010)	0 - 780
# Journalists	Number of journalists who followed the candidate	0 - 15
Incumbency	Did the candidate have a seat in the 2006-2010 Lower House or was he a cabinet member?	0 - 1
Well-known	Was the candidate well-known prior to the election campaign?	0 – 1
# Newspaper articles	Number of newspaper articles that featured the candidate's name prior to the campaign (27 April 2009 – 26 April 2010)	0 – 4,001
Position	Position on the list	1 - 75
End of list	Last person on the list	0 – 1
List-puller	First person on the list	0 – 1
First woman	First woman on the list	0 – 1
Woman	Gender of the candidate	0 - 1
First ethnic	Highest ranked candidate of non-Dutch origin	0 – 1
Ethnicity	Non-Dutch origin	0 – 1

References

Andeweg, R. B. (2005) The Netherlands: The Sanctity of Proportionality. IN Gallagher, M. & Mitchell, P. (Eds.) *The Politics of Electoral Systems.* Oxford, Oxford University Press.

Beaumont, P. (25 February 2011) The Truth about Twitter, Facebook and the Uprisings in the Arab World. *The Guardian.*

Cain, B. E., Dalton, R. J. & Scarrow, S. E. (Eds.) (2003) *Democracy Transformed? Expanding Political Opportunities in Advanced Industrial Democracies,* Oxford, Oxford University Press.

Colomer, J. M. (2011) Introduction: Personal and Party Representation. IN Colomer, J. M. (Ed.) *Personal Representation. The Neglected Dimension of Electoral Systems.* Colchester, ECPR Press.

Crawford, K. (2009) Following You: Disciplines of Listening in Social Media. *Continuum,* 23**,** 525-535.

Dalton, R. J. (2004) *Democratic Challenges, Democratic Choices. The Erosion of Political Support in Advanced Industrial Democracies,* Oxford, Oxford University Press.

Darcy, R. & McAllister, I. (1990) Ballot Position Effects. *Electoral Studies,* 9**,** 5–17.

Dimitrova, D. V., Shehata, A., Strömbäck, J. & Nord, L. W. (2011) The Effects of Digital Media on Political Knowledge and Participation in Election Campaigns: Evidence From Panel Data. *Communication Research,* (Online)**,** 1-24.

Dryzek, J. (2001) Legitimacy and Economy in Deliberative Democracy. *Political Theory,* 29**,** 651-669.

Farrell, D. & McAllister, I. (2006) Voter Satisfaction and Electoral Systems: Does Preferential Voting in Candidate-Centred Systems Make a Difference? *European Journal of Political Research,* 45**,** 723-749.

Gallagher, M. (2011) Elections and Referendums. IN Caramani, D. (Ed.) *Comparative Politics.* 2nd ed. Oxford, Oxford University Press.

Geys, B. & Heyndels, B. (2003) The Influence of 'Cognitive Sophistication' on Ballot Layout Effects. *Acta Politica,* 38**,** 299-311.

Gibson, R. (2009) New Media and the Revitalization of Politics. *Representation,* 45**,** 289-299.

Gibson, R. K. & McAllister, I. (2011) Do Online Election Campaigns Win Votes? The 2007 Australian "Youtube" Election. *Political Communication,* 28**,** 227-244.

Goodman, E. (5 July 2009) Journalism needed in Twitter era. Retrieved from *Columbia Daily Tribune.*

Hazan, R. & Rahat, G. (Eds.) (2010) *Democracy within Parties: Candidate Selection Methods and Their Political Consequences,* Oxford, Oxford University Press.

Hibbing, J. R. & Theiss-Morse, E. (2002) *Stealth Democracy. American's Beliefs about how Government Should Work,* New York, Cambridge University Press.

Hoff, J. (2010) Election Campaigns on the Internet: How Are Voters Affected? *International Journal of E-Politics* 1**,** 22-40.

Homero Gil De Zúñiga, Puig-I-Abril, E. & Rojas, H. (2009) Weblogs, Traditional Sources Online and Political Participation: An Assessment of how the Internet Is Changing the Political Environment *New Media & Society,* 11**,** 553-574.

Jackson, N. A. & Lilleker, D. G. (2009) Building an Architecture of Participation? Political Parties and Web 2.0 in Britain. *Journal of Information Technology &*

Politics, 6**,** 232-250.
Jacobs, K. & Leyenaar, M. (2011) A Conceptual Framework for Major, Minor and Technical Electoral Reform. *West European Politics,* 34**,** 495-513.
Karvonen, L. (2010) *The Personalisation of Politics,* Colchester, ECPR Press.
Katz, R. S. & Mair, P. (2009) The Cartel Party Thesis: A Restatement. *Perspectives on Politics,* 7**,** 753-766.
Krebs, T. B. (1998) The Determinants of Candidates' Vote Share and the Advantages of Incumbency in City Council Elections. *American Journal of Political Science,* `42**,** 921-935.
Lutz, G. (2010) First Come, First Served: The Effect Of Ballot Position on Electoral Success in Open Ballot PR Elections. *Representation,* 46**,** 167-181.
Mair, P. (2006) Ruling the Void? The Hollowing of Western Democracy. *New Left Review,* 42**,** 25-51.
McDermott, M. L. (1997) Voting Cues in Low-Information Elections: Candidate Gender as a Social Information Variable in Contemporary United States Elections. *American Journal of Political Science* 41**,** 270-283.
Morris, D. (2002) *Power Plays. Win Or Lose-how History's Great Political Leaders Play the Game,* New York, Harper.
Norris, P. (Ed.) (1999) *Critical Citizens. Global Supoort of Democratic Government,* Oxford, Oxford University Press.
Norris, P. (2011) *Democratic Deficit. Critical Citizens Revisited,* Cambridge, Cambridge University Press.
Oosterveer, D. (2011) Facebook nog niet Groter dan Hyves in Nederland.
Pharr, S. J. & Putnam, R. D. (Eds.) (2000) *Disaffected Democracies,* Princeton, Princeton University Press.
Poguntke, T. & Webb, P. (Eds.) (2005) *The Presidentialization of Politics: A Comparative Study of Modern Democracies,* Oxford, Oxford University Press.
Rackaway, C. (2007) Trickle-Down Technology? The Use of Computing and Network Technology in State Legislative Campaigns. *Social Science Computer Review* 25**,** 466-483.
Renwick, A. & Pilet, J.-B. (2011) The Personalization of Electoral Systems: Theory and European Evidence. *ECPR General Conference.* Rejkjavik, Iceland.
Riera, P. (2011) Closed Party List. IN Colomer, J. M. (Ed.) *Personal Representation. The Neglected Dimension of Electoral Systems.* Colchester, ECPR Press.
Shirky, C. (2011) The Political Power of Social Media. *Foreign Affairs,* 90**,** 28-41.
Suddulich, M. L. & Wall, M. (2010) "Every little helps". Cyber campaigning in the 2007 Irish General Election. *Journal of Information Technology and Politics,* 7**,** 340-355.
Thijssen, P. & Jacobs, K. (2004) Determinanten van voorkeurstemproporties bij (sub-) lokale verkiezingen. De Antwerpse districtsraadsverkiezingen van 8 oktober 2000. *Res Publica,* 46**,** 460-485.
Wauters, B., Weekers, K. & Maddens, B. (2010) Explaining the Number of Preferential Votes for Women in an Open-List PR System: An Investigation of the 2003 Federal Elections in Flanders (Belgium). *Acta Politica,* 45**,** 468–490.
Wilson, J. (25 February 2009) Not Another Political Zombie. *New Mathilda Online.*
Wright, D. K. & Hinson, M. D. (2009) An Updated Look at the Impact of Social Media

on Public Relations Practice. *Public Relations Journal*, 3**,** 1-27.
Zakaria, F. (2007) *The Future of Freedom. Illiberal Democracy at Home and Abroad,* New York, W. W. Norton & Company Inc.
Zhang, W., Johnson, T. J., Seltzer, T. & Bichard, S. L. (2010) The Revolution Will be Networked. The Influence of Social Networking Sites on Political Attitudes and Behavior. *Social Science Computer Review* 28**,** 75-92.