Cyber-Campaigning in Denmark: Application and Effects of Candidate Campaigning

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ABSTRACT. We set out to analyze the application and effect of cyber-campaigning among candidates at the 2011 Danish general election campaign in order to provide hard evidence on whether new technologies are electorally decisive, or whether traditional offline campaigning still makes sense. First, both Web sites and Facebook sites are popular among candidates, but other features such as blogs, feeds, newsletters, video uploads, SMS, and Twitter are used by less than half the candidates. Second, only age and possibly education seem to matter when explaining the uptake of cyber-campaigning. The prominent candidates are not significantly more likely to use cyber-campaigning tools and activities. Third, the analysis of the effect of cyber-campaigning shows that the online score has an effect on the interparty competition for personal votes, but it does not have a significant effect when controlling for other relevant variables. The online rank of candidates within party and constituency is more important for intraparty competition; in fact, it has a significant effect: it matters to be more online than fellow candidates. In sum, the effect of cyber-campaigning is limited, but it matters more to the contest among same-party candidates than among parties in an open list, multimember constituency electoral system like the Danish have.

KEYWORDS. Candidate campaigning, cyber-campaigning, electoral effect of campaigning

NORMALIZATION, EQUALIZATION, AND WHETHER IT MATTERS

Since the turn of the 21st century, prior to all election campaigns, Danish journalists and pundits have predicted that *this* time, new technologies, whether they be party Web sites in the Web 1.0 era or the use of social media in the Web 2.0 era, would be electorally decisive, as has been the case in the UK (Gibson et al.,

2010; Gibson & Cantijoch, 2011). Furthermore, parties are spending large sums of money on creating and maintaining their Web sites. However, candidates and parties also still campaign in "old-style" ways by delivering leaflets in the streets, participating in election meetings, and posting advertisements in newspapers. To provide some evidence on this topic, we analyze the application and effect of cyber-campaigning among candidates in the 2011 Danish general election. This case, which involves a proportional system with open lists and a multiparty system, enables analyses of the effects of cyber-campaigning both across and within parties.

New information and communications technologies allow candidates, parties, and voters to inform, communicate, mobilize, organize, etc., in direct and less costly ways in election campaigns, which are the most crucial moment for a representative democracy. The most prominent overall question in this regard is whether these new technologies improve or impair the democratic process. From the "equalization" perspective, it is argued that the new technologies enhance democracy because they allow for less expensive access to information, ways of communication, mobilization, and organization, etc. Minor parties with fewer resources for campaigning may use the new technologies to the same extent as the major players if the costs are moderate. Additionally, because major parties dominate the traditional, edited media, minor parties may make up for some of this distortion through their own channels of information and communication, such as Web sites and e-mail newsletters. Similarly, voters may also bypass traditional media and seek information directly from the parties and candidates. Hence, the new technologies may level the playing field among participants. On the other hand, from the "normalization" perspective, it is argued that if the new technologies are applied by the same actors as traditional, offline tools, it is "politics as usual" (Gibson & Ward, 1998; Margolis & Resnick, 2000) or "preaching to the converted" (Norris, 2003). Even if new technologies require fewer resources, they still require both time and money. Cyberspace professionals are expensive to employ. Technologies that enable direct contact with the electorate, such as e-mail lists,

require maintenance, i.e., resources. And more resourceful parties may spend more resources and hence exploit the new technologies in a more advanced way. Similarly, even if voters make use of the new technologies, they still adhere to the traditional ways of seeking information and communication as well. These two perspectives have been analyzed in a plethora of studies on the basis of various factors, including the content of party Web sites and party member participation.

The normalization and equalization perspectives are based on an assumption that these new technologies make an impact; it is taken for granted that, e.g., cyber-campaigning makes a difference because otherwise the uptake of it would be irrelevant. Basically, if cyber-campaigning has no electoral impact, the normalization/equalization perspective becomes irrelevant. However, the impact upon the electorate, citizens, etc., is empirically far from decided upon. Hence, determining whether cyber-campaigning is employed more equally or is skewed as other campaigning measures is only the first step in this analysis. It is more relevant and interesting to see whether the adoption of cyber-campaigning—as well as other campaigning measures—influences who is elected. Basically the questions we ask in this article are who applies cyber-campaigning, and does it make a difference for the electoral outcome?

In the second part of the article, we show how this study of the character and effect of candidate cyber-campaigning within a proportional, multimember constituency electoral system with open lists contributes to the advancement of this research field. In the third part, we present the Danish case and the Danish candidate survey applied in these analyses. In electoral systems with open lists and multimember districts such as the Danish system, the potential cyber-campaigning effect is larger than in two-party systems for two reasons. First, the contest among parties is not about a single seat but about obtaining a smaller or larger share of all seats. Second, the open lists invite competition among candidates within parties. That is, we can explore inter- as well as intraparty competition.

In the following three parts, we present the results of these analyses. First, in the fourth section, we show the character of candidates' use of cyber-campaigning tools and activities and present the measure "online score," which is applied in the following analyses. In the second analysis, in the fifth section, we explain the adoption of cyber-campaigning tools among candidates, and in the final analysis, in the sixth section, we analyze the effect of cyber-campaigning on the electoral results of candidates. Finally, we conclude that although candidates do make use of cyber-campaigning tools and activities, the direct electoral effect of this behavior on both interparty and intraparty competition remains limited.

CANDIDATE CYBER-CAMPAIGNING

Within proportional, multiparty systems, parties dominate candidate recruitment and monopolize representation in parliament. The party label is indispensable, and the largest shares of budgets are spent on the party campaign as such. Party headquarters and party leadership decide on a large part of the campaign issues such as the overall strategy, campaign messages, design and layout, outdoor commercials, printed advertisements, tour of the party leader, and, in particular relevant for this topic, also party Web sites, use of social media online advertising, and other aspects of parties' and party leaders' cyber-campaigning efforts. A plethora of previous studies have looked into party Web sites (for a brief overview of the field, see Gibson, 2012). However, even if party-dominated, within electoral systems with open lists, candidates are also competing with each other—even with candidates from the same party—and most of them for a final verdict of "elected" at the end of the (election) day.

When looking into campaign effects, it is doubtless very difficult to assess the electoral effects of party campaigning and various campaign tools, hence, also of cyber-campaigning tools, due to the plethora of tools applied, actors taking part, happenings, etc., in campaigns. However, at the level of the individual candidates, it is more plausible to link campaign efforts to election results. Therefore, the focus here is on candidate campaigning, even though this activity is part of the overall campaign conducted at election time, and even though the cyber-campaigning efforts are expected to be larger at the level of the party organization.

Previous studies of candidates' cyber-campaigning have focused on the character of online campaigning and on explaining the use of it (Carlson, 2007; Carlson & Djupsund, 2001; Gibson & McAllister, 2006, 2011a, 2011b; Lev-On, 2011; Sudulich & Wall, 2010; Zittel, 2009). These studies have shown that a large number of variables may explain candidates' uptake of cyber-campaigning, in particular party size, the competitiveness of the race, challenger-incumbent position, age, and the "domino-effect" among contestants. On this basis, we explore whether a number of candidates' personal and political characteristics may explain their uptake of cyber-campaigning tools and activities: We expect that a candidate's age, gender, and education will have an impact on their uptake, where younger, male, and more educated candidates are more likely to use cyber-campaigning tools and activities than the older, female, and less educated candidates. We explore "normalization" vs. "equalization" at the individual level of candidates and expect, in agreement with the normalization perspective, that incumbents apply cyber-campaigning to a larger extent than challengers. Furthermore, also consistent with a normalization perspective, we expect that the political resources inherent in being placed first on one or more ballots within the constituency matter to candidates' uptake of cyber-campaigning. Finally, we explore the "domino effect" (c.f., Gibson, 2012). Multimember districts contain more than one incumbent and one challenger; hence, we explore whether constituency matters to the candidates' uptake of cyber-campaigning tools and activities.

The character and uptake of cyber-campaigning is only relevant if it matters, i.e., if it has an effect, in this case on the electoral results of the candidates. Otherwise cyber-campaigning has no way of normalizing or equalizing anything. Turning to the analysis of the effects of candidates' cyber-campaigning,

few previous studies of cyber-campaigning have focused on this effect. Gibson (2012) finds that these previous studies show that there is a relationship between cyber-campaigning and electoral support. D'Alessio (1996) shows that in 1996, cyber-campaigning had an electoral effect (beyond incumbency and party) in congressional elections—results that were not supported by Bimber and Davis (2003). However, several studies based on candidate surveys have supported the results (Gibson & McAllister, 2006, 2011a, 2011b; Sudulich & Wall, 2010). Gibson and McAllister have analyzed the case of Australia over time since 2001 and explicitly linked candidate campaigning and election results on the basis of candidate surveys. In the case of the Australian elections to the House of Representatives in 2010, Gibson and McAllister (2011b) conclude that having a personal Web site is electorally advantageous, but that Web 1.0 features such as e-mail newsletters and SMS are electorally disadvantageous, and Web 2.0 features such as Twitter, video sharing sites, and Flickr do not make a significant difference. However, even if this analysis in a general way controls for the effect of campaigning in the form of number of party workers, length of campaign preparations, and length of party membership, which have previously been shown to matter, there are no controls for either budget differences or the use of offline, traditional campaigning by candidates and their campaign teams. Previous studies on the effects of traditional campaigning, the majority of which explore the British case (an exception being Party Politics 2003), have shown the effects of money (Cutts, 2006; Cutts & Shryane, 2006; Johnston & Pattie, 2007; Pattie et al., 1995), voluntary labor (Denver & Hands, 1997; Denver et al., 2003, 2004; Fisher et al., 2006, 2011; Johnston et al., 2012; Marsh, 2004; Whiteley & Seyd, 1994, 2003), and a combination of both (Carty & Eagles, 1999; Fieldhouse & Cutts, 2008) on election results at the constituency level. Furthermore, Sudulich and Wall (2010), in their Irish study, have argued in favor of including campaign expenses (even if this inclusion does not cancel out the effect of Web sites). Hence, in our quest for more precision, we include both overall measures of campaigning, such as campaign budget and number of volunteers, as well as three specific campaign activities, when explaining candidates' electoral results.

Furthermore, because they control for party, Gibson and McAllister do not control for incumbency, even though the descriptive part of the analysis shows that incumbents are twice as likely as challengers to have personal Web sites (2011b, p. 12). The included parties are, in the Australian case, limited to three—namely, the two major parties, Labor and Liberal-National, and the minor party, Greens. Hence, by including candidates from more parties varying in size, resources, and ideology, we are, similarly to Sudulich and Wall (2010), able to control for incumbency. Additionally, because some candidates are placed at the top of the ballot and therefore are more likely to receive personal votes, we control for the number of first places on ballots within the constituency.[1] This is similar, but not identical, to the "frontrunner" status based on bookmakers' odds applied by Sudulich and Wall (2010).

In addition, in regard to the dependent variable, we look into two types of electoral effects. First, as in previous studies (Gibson & McAllister, 2011a; Sudulich & Wall, 2010), we explore the effect on candidates' vote shares, here defined as a candidate's share of all personal votes cast within the constituency. This value is the result of the competition among all candidates for the personal votes and is hence termed interparty competition. Second, we explore the effect on candidates' share of all personal votes cast for candidates standing for election for their own party. This effect arises as a result of the competition for personal votes among candidates within the party and is hence termed intraparty competition. Due to the strong hold of party labels and the high degree of party identification among voters, it is expected that cyber-campaigning, similarly to other means of campaigning, has a larger effect on intraparty competition than on interparty competition (Hansen & Hoff, 2013; Hansen & Kosiara-Pedersen, 2013).

No previous studies have looked into the effect of cyber-campaigning on both interparty and intraparty competition, partly because this

issue only makes sense in electoral systems that enable competition among candidates within parties, such as those with multimember constituencies and open lists, as in the Danish case.

THE DANISH CASE AND CANDIDATE SURVEY

The application and effect of candidates' cyber-campaigning are analyzed within the context of the Danish electoral and party system. The Danish case is well suited for an analysis of the character and effect of cyber-campaigning for several reasons. The Danish election system belongs to the category of proportional systems with two-tier seat allocation, in which the national-level seat allocation takes precedence and ensures a high degree of proportionality as well as the importance of the party label. However, candidates are nominated and elected within 10 multimember constituencies, thereby ensuring that all areas of the country are represented in parliament. Voters may vote for parties or a specific candidate on the parties' lists—almost all of which are open, meaning that the votes of the electorate are decisive in who gets elected. Half of the Danish electorate casts personal votes. Votes for candidates are not wasted if the candidate is not elected, because the votes are then counted as party votes. Hence, the electoral system with open lists allowing for both personal and party votes within 10 multimember electoral districts provides adequate and operationalizable dependent variables—namely, each candidate's share of all personal votes (interparty competition) and all personal votes cast for the party (intraparty competition) (Bengtsson et al., 2013).

The Danish multiparty system and multimember constituencies include a large number of candidates from nine different parties spanning the political spectrum and varying in campaign strategies, level of party member activism, campaign budgets, and likelihood of being elected, as well as personal characteristics, within both parties and constituencies. In sum, compared to systems with single-member constituencies and few parties, which provide the cases of most previous studies of

the effect of cyber-campaigning, the Danish multiparty system and multimember constituencies provide large variation in the independent variables. Furthermore, in an international comparison, Danish campaigns are, similarly to those in other Nordic countries, less costly (Bengtsson et al., 2013).

According to data from 2011, Denmark is well connected, with 94% of the 16- to 64-year-olds having accessed the Internet within the last three months (Statistics Denmark, 2011). Previous studies of cyber-campaigning in the Danish case have focused mainly on the content of party Web sites (Allern, 2008; Hansen & Kosiara-Pedersen, 2012). However, recent studies on the 2011 general election have shed more light. First, a study of the effect on the electorate shows that parties and candidates reach only a limited share of the electorate through cyber-campaigning tools (Hansen & Kosiara-Pedersen, 2012b).[2] Second, a study on candidate campaigning shows that candidates may be divided into three groups based on their campaigning methods: (1) Candidates communicating through traditional mass media (because they have access), (2) candidates focusing on social media (due to lack of access to traditional media), and (3) candidates who do not focus much on media in their campaign (Skovsgaard & Van Dalen, 2013).

In Denmark, election dates are not fixed, and elections are usually called three weeks prior to the election; campaigns are short and intensive. Parties dominate candidate recruitment and monopolize representation in parliament. The 2011 election that we focus on here was called on August 26 and was held on September 15. A total of 804 candidates from nine parties (and a few independents) stood for election. The parties are listed as follows in the order of their place on the traditional economic left–right scale: Red-Green Alliance (RGA), Socialist People's Party (SPP), Social Democrats (SD), Social Liberals (SLP), Christian Democrats (ChD), Conservative People's Party (CPP), Liberals (L), Danish People's Party (DPP), and Liberal Alliance (LA). Of these, 175 candidates from all parties except the Christian Democrats gained representation (Kosiara-Pedersen, 2012).

With a focus on candidate campaigning, the primary data source in this article is a survey among candidates regarding their campaigning efforts. The candidate survey gathered data from all 804 candidates in the 2011 Danish general election immediately following the election regarding their campaigning tools and activities. An impressive 68% responded to some questions, and 58% responded to all questions in the questionnaire. The respondents are representative compared to the total population of candidates in regard to gender, age, party, constituency, number of personal votes, and whether or not they were elected; however, the most prominent candidates are missing among the respondents (Hansen et al., 2012). Supplementary data on a candidate's place on the ballots and number of votes for candidates and parties within each constituency are taken from electoral statistics.

On this basis, we first analyze the character of candidates' use of cyber-campaigning across parties; second, we try to explain this use with parties' and candidates' characteristics; and third, we analyze the effect of cyber-campaigning on the electoral results of candidates. Each of these issues is dealt with in turn in the following three sections.

THE CHARACTER OF CANDIDATES' CYBER-CAMPAIGNING

Table 1 shows the extent to which candidates apply various cyber-campaigning tools, as well as the frequency with which they update these tools—whether it is daily or more often. The general picture, as shown in the "all" column, is that both Web sites and Facebook pages are popular among candidates. Approximately four out of five candidates have a Facebook site, and two-thirds of them update it daily. In regard to Web sites, more than half the candidates make use of a Web site provided by their party, whereas a little less than half have another Web site. In total, 85% of the candidates have at least one Web site (not shown). Features on the sites include blogs (43%) and feeds (37%). Less than one-quarter of the candidates provide their own newsletter, and the average number of subscribers (not shown)—348—seems rather limited compared to both the

TABLE 1. Candidates' Use of Cyber-Campaigning (Percent)

	RGA	SPP	SD	SLP	ChD	CPP	L	LA	DPP	All	N
Party Web site	39	78	60	36	82	47	80	57	28	56	509
Daily updates	27	15	28	21	22	36	51	36	19	28	283
Facebook-site	63	94	93	89	70	92	93	88	55	82	507
Daily updates	53	71	85	63	40	82	79	70	41	68	415
Other (e.g., personal Web site)	7	33	49	69	30	73	30	71	59	47	505
Daily updates	0	32	45	36	20	30	43	30	26	32	234
Feed on Web site	0	41	48	53	33	37	50	39	6	37	234
E-mail newsletter	25	18	42	22	13	35	36	12	3	23	234
Blog on Web site	50	64	30	69	33	37	29	45	26	43	234
Daily updates	0	29	20	32	40	50	75	47	33	37	100
Video upload	23	55	60	50	26	49	50	47	29	44	503
Twitter	2	15	15	44	14	17	24	36	5	18	503
Daily updates	0	40	60	70	29	40	27	76	67	54	92
Short text message	7	30	33	25	14	20	20	4	9	19	503
Daily updates	25	15	10	15	0	33	11	0	20	15	93
Average online score (index 0–1)	**0.21**	**0.38**	**0.43**	**0.46**	**0.28**	**0.43**	**0.41**	**0.44**	**0.26**	**0.37**	**476**

Note: The percentage of "daily updates" is among those who use the tool mentioned above. The online score is the average score of all candidates from each of the nine parties. The online score of each candidate is their score on a 0–1 scale based on the 15 entities where candidates are granted one point for having a party Web site, one point for updating it daily, one point for having a Facebook site, one point for updating it daily, and so on. The maximum score among the candidates is 12 (none reach 15). This score is rescaled from 0 to 1, so that 1 indicates that the candidate uses 12 of the 15 entities, and 0 indicates the use of none of them.

number of party members (160,000) or the number of votes needed to be elected (approximately 19,000). Less than half of the candidates have uploaded videos on the Internet (44%). Less than one-fifth of the candidates have used short text messages, and on average, they have sent two short text messages (not shown). One-fifth of the candidates use Twitter, and half of these candidates update their accounts at least daily.

Turning to a few marked differences among the parties, candidates from the Red-Green Alliance, Danish People's Party, and Christian Democrats apply these tools to a lesser extent than candidates from other parties. Newsletters are much more common among candidates from the three older parties, the Social Democrats, Liberals, and Conservatives, among which more than one-third of their candidates with Web sites provide a newsletter.[3] Candidates from the Socialist People's Party, Social Democrats, and, to some extent, the Social Liberals make use of short text messages to a larger extent than other candidates, but the frequency with which they do this is rather modest, at around two messages per candidate. The application of Twitter varies greatly among the parties: It is greatly used by candidates from the Social Liberals (44%) and Liberal Alliance (36%), and to some extent Liberals (24%), but less than one in five candidates in other parties use the service. The Social Liberals have had a specific strategy in this regard (see, e.g., Moe & Larsson, 2013, p. 786; Worth, 2013), and the Liberals have integrated various social media into their party Web site, thus encouraging the application of these tools (Horsted, 2010).

To assess the extent to which candidates use cyber-campaigning tools and activities, we created an online score. This score takes into account both the number of cyber-campaigning activities the candidates implement and the frequency of use. It is, quite simply, a score on a 0–1 scale based on the 15 entities in the top part of Table 1. Hence, candidates are granted one point for having a party Web site, one point for updating it daily, one point for having a Facebook site, one point for updating it daily, and so on. This score includes both the diversity and intensity of cyber-campaigning and mixes both information and participation tools. The

maximum score occurring among the candidates is 12. On this basis, the scores were rescaled from 0 to 1, where 1 indicates that the candidate uses 12 of the 15 entities in Table 1.

The bottom row of Table 1 shows that the overall average among all candidates is 0.37. Variation is found among the parties; in particular, the candidates from the Red-Green Alliance, Christian Democrats, and Danish People's Party score lowest, and candidates from the Social Liberals, Conservatives, and Liberal Alliance score the highest. In the case of the Red-Green Alliance and Christian Democrats, this disparity may partly be explained by the fact that a large share of their candidates take part in campaigning for the sake of the party, not their own election. This behavior is due to both party culture and the low likelihood of being elected (Hansen & Kosiara-Pedersen, 2013). As for the Danish People's Party, they are reluctant to make use of all this new technology, both in their ideology and in how they conduct politics (Søndergaard, 2010).

In sum, we see variation in the use of cyber-campaigning across parties. We now turn to the individual level of candidates when explaining candidates' online scores in order to understand to what extent differences among candidates can explain their use.

EXPLAINING CANDIDATES' UPTAKE OF CYBER-CAMPAIGNING

Looking into the relationship between candidates' personal and political characteristics, on the one hand, and candidates' online scores, on the other, certain trends become apparent. The bivariate relationships (not shown) indicate that the younger the candidate, the higher the score; women score insignificantly higher than men; candidates with one or more first place(s) on the ballots within their constituency score higher than those without; and incumbents score higher than non-incumbents. These results support previous studies (see, e.g., Carlson & Djupsund, 2001).

Furthermore, when comparing the scores of candidates within the 10 constituencies, there are clear differences among these scores which

could indicate a domino effect. The scores are higher in the eastern part of the country, where Copenhagen and its suburban area are located, than in the western part, Jutland and the island of Bornholm, which have more countryside; and this observation is not due to the level of Internet penetration within these constituencies (not shown).

However, Table 2 shows that when including age, gender, education, incumbency, first places on the list, and constituency in a single model, only the effect of age and education remains significant. Candidates aged 48 and above score significantly lower than candidates aged 18–27, whereas candidates in the 28–47 age group do not score significantly lower than the young candidates on the online score scale. There is

TABLE 2. Explaining the Uptake of Cyber-Campaigning Tools and Activities

28–37 years old	−0.04
38–47 years old	−0.06
48–57 years old	−0.15***
58–67 years old	−0.14***
68 + years old	−0.19**
Female	0.01
High school	−0.13*
Vocational schooling	−0.12*
Academic degree of less than three years	0.03
3–4 years academic degree	−0.07
Academic degree of five years or more	0.04
Incumbency	0.04
At least one first place on ballots	0.04
Fyn constituency	0.11
Københavns omegn constituency	0.11
København constituency	0.10
Nordjylland constituency	0.04
Nordsjælland constituency	0.10
Sjælland constituency	0.08
Sydjylland constituency	0.01
Vestjylland constituency	0.02
Østjylland constituency	0.06
Constant	0.36***
R^2	0.15
N	433

Note: OLS regression, unstandardized coefficients. References are 18–27 years old, male, challenger, no first places on ballots within the constituency, Bornholm electoral constituency, only compulsory schooling. Note that 3–4 years academic degree covers college degrees and degrees required for professions such as teachers, policemen, and nurses, and that an academic degree of five years or more is equal to MA and PhD degrees at universities. *p < 0.05, **p < 0.01, ***p < 0.001.

in this model also a small effect of education, where candidates with high school and vocational schooling are a little less inclined to take up cyber-campaigning compared to candidates with only compulsory (nine years) education.

In sum, these analyses point towards the equalization perspective rather than the normalization perspective because incumbents and candidates with first places on the ballots, who are the more prominent candidates, are not significantly more likely to have a high online score. In regard to incumbency, this result is more consistent with a recent study of Israeli local and regional elections (Lev-On, 2011) than with previous studies in Australia, Ireland, Finland, and Germany (Carlson, 2007; Carlson & Djupsund, 2001; Gibson & McAllister, 2006, 2011a, 2011b; Sudulich & Wall, 2010; Zittel, 2009).

So far we have shown that there are some differences across parties' use of cyber-campaigning. On the individual level, the younger candidates tend to use cyber-campaigning the most. However, as we found no effect of incumbency nor whether the candidates were listed first on the ballot, we conclude that our data support the equalization perspective. Nevertheless, the equalization of the campaign through cyber-campaigning is only relevant if we can show that cyber-campaigning effects the election result. This analysis is the endeavor in the next section.

THE EFFECTS OF CYBER-CAMPAIGNING ON CANDIDATES' ELECTION RESULTS

It is difficult, if not impossible, to link all campaign activities with individual voters and their voting choices and thus accurately estimate the effects of campaigning due to the plethora of actual campaigning conducted by candidates, parties, media, and other political actors. However, here we focus on the campaigns conducted by candidates and their effects. This aspect is only part of the campaign, but it is an important part, because the successful candidates are those who become our representatives when they take up their seats in parliament.

We pursue the task of exploring the link between candidates' campaigning and electoral results; in particular, we focus on whether candidates' cyber-campaigning has an effect on their electoral results, i.e., does the online score have an impact on candidates' personal vote shares?

Candidates' election results are assessed in two ways, leaving us with two dependent variables. The first is a candidate's share of all personal votes cast within the constituency, which indicates how well the candidate did in the interparty competition with other candidates. The second variable is the candidate's share of all personal votes cast for the party within the constituency, which indicates how well the candidate did in the intraparty competition with fellow candidates within the party.

We mainly seek to explain the effect of a candidate's online score on his or her election result. However, we also look into how candidates do relative to other candidates and whether this makes a difference. Each candidate receives an "online rank" within his or her party in the constituency: 1 to the candidate with the highest online score, 2 to the candidate with the second highest online score, and so on. We analyze whether a candidate's online rank within his or her party in the constituency makes a difference—that is, whether

it makes a difference that a candidate has a greater online presence than other candidates from the same party. Furthermore, we include the number of votes cast within the constituency to control for constituency size, because relatively more candidates stand for election in larger constituencies.

In the second model, we include variables known before the election campaign—that is, gender, age, incumbency, and first place on the ballot; these variables have previously been shown to matter (Hansen & Kosiara-Pedersen, 2012a). In the third model, we include two overall measures of the "size" of the candidate's campaign—namely, campaign budget and number of volunteers. In the fourth and final model, we include number of election meetings, number of campaign advertisements in nationwide newspapers, and number of appearances on national television, which are three traditional, widely sought campaign tools and activities.

Table 3 shows the results of the analyses of the effect on inter-party competition, i.e., among all candidates within the constituency. The first model in Table 3 shows that the online score does have an impact on candidates' shares of all personal votes cast within the constituency. However, a candidate's rank of online score within the constituency does not have an impact.

TABLE 3. Interparty Competition: The Effect of Competition Within Constituency on All Personal Votes

Dependent variable per thousand personal votes of all personal votes in constituency				
Online score (0–1)	14.69*	6.04	3.77	3.35
Rank of online score within constituency	0.06	−0.01	0.02	0.03
No. of votes within constituency	−9.98***	−10.35***	−11.25***	−10.92***
Women		0.48	−0.48	−0.41
Age		−0.13	−0.04	−0.02
Incumbent		24.99***	18.95***	17.07***
At least one first place on list		4.13*	3.38	2.98
Budget (10,000 Dkr)			0.29*	0.22
No. volunteers			0.09***	0.09***
No. of election meeting/panel				−0.11
No. of campaigns add in national papers				0.14
Participated in national TV				5.30**
Constant	136.00***	144.12***	149.96***	145.44***
R^2	0.06	0.26	0.42	0.43
N	503	503	503	503

Note: *p < 0.05, **p < 0.01, ***p < 0.001.OLS regression, unstandardized coefficients. Mean VIF is 1.52 in the final model indicating no problem with multicollinearity. Rank measured as 1 being ranked first.

The effect of the online score becomes insignificant in the second model when including gender, age, incumbency, and number of first places on the ballot. Instead, incumbency and having at least one first place on the ballot matter. The inclusion of budget and volunteers shows that both of these overall measures of campaigning matter, but that when they are included, having a first place on the ballot does not have significant effect on candidates' vote-shares. When including three traditional activities in the final column, incumbency and number of volunteers still matter, but the effect of campaign budget is no longer significant. Instead, appearance on national television has a significant impact on the electoral results of candidates.[4] In sum, candidates' online scores do not have an impact on either the interparty competition or the candidates' election results. Instead, incumbency, volunteers, and national television appearances are what matters the most. The final model has an R^2 of 0.43.

Turning to the intraparty competition, i.e., the competition among candidates of the same party within the same constituency, the results are shown in Table 4. Table 4 shows that candidates' online scores do not have an impact on their electoral results. However, a candidate's rank of online score within a party and a constituency has an impact: the higher the online score relative to other candidates, the larger the share of personal votes. Hence, it is electorally advantageous for candidates to outperform their fellow party candidates in regard to the application of cyber-campaigning tools and activities. This effect remains even when controlling for gender, age, incumbency, and first place on the ballot, among which only incumbency matters. The effect also remains when controlling for budget and number of volunteers, among which only the latter has an impact. However, the effect of the rank order is not significant when including the three specific campaign activities. Looking further into this situation, it turns out that when the election meetings are added, the effect of the rank order becomes insignificant (not shown). This pattern might arise because it is often the top-five candidates who fight hard for election, both online and in traditional election meetings. In addition, it turns out that the rank ordering at the top is more important than at the bottom; being first rather than second in the online rank order is much more important than being 10th instead of 11th (not shown).

In sum, the final model explaining candidates' shares of all personal votes cast for

TABLE 4. Intraparty Competition: The Effect of Competition Within Party and Constituency on Personal Votes

Dependent variable per thousand personal votes of all personal votes on party within constituency				
Online score (0–1)	14.26	−7.81	−24.38	−41.23
Rank of online score within constituency and party	−7.66*	−8.22*	−7.62*	−4.66
No. of votes within constituency	−129.13***	−130.85***	−135.35***	−141.66***
Women		18.96	16.23	12.00
Age		0.02	0.39	1.11**
Incumbent		141.01***	116.45***	72.58***
At least one first place on list		23.08	19.65	14.63
Budget (10,000 Dkr)			1.75	−0.49
No. volunteers			0.29***	0.34***
No. of election meeting/panel				3.42***
No. of campaigns add in national papers				3.60***
Participated in national TV				66.77***
Constant	1840.67***	1824.51***	1863.41***	1878.75***
R^2	0.20	0.33	0.38	0.48
N	503	503	503	503

Note: *p < 0.05, **p < 0.01, ***p < 0.001. OLS regression, unstandardized coefficients. Mean VIF is 1.36 in the final model indicating no problem with multicollinearity. Rank measured as 1 being ranked first.

candidates of their party shows that in the intraparty competition, neither online score nor rank matters (p < .128). Rather, it is a matter of incumbency, national television appearance, and, to a lesser extent, campaign advertisements in nationwide newspapers, election meetings, and number of volunteers that are decisive for candidates' election results. The final model has an R^2 of .48.

In sum, these analyses show that the effects of candidates' cyber-campaigning are limited in regard to both interparty and intraparty competition among candidates. Whereas the online score on its own matters to the interparty competition for personal votes, it does not when controlling for other relevant variables. The online rank of candidates within party and constituency is not more important for intraparty competition; hence, having a larger online presence than fellow candidates seems not to matter.[5]

DISCUSSION AND CONCLUSION

We set out to analyze the application and effect of cyber-campaigning among candidates at the 2011 Danish general election campaign to provide hard evidence on whether new technologies are electorally decisive or whether traditional offline campaigning still makes sense.

The first analysis of the character of cyber-campaigning showed that both Web sites and Facebook sites are popular among candidates, but that other features, such as blogs, feeds, newsletter, video uploads, SMS, and Twitter are used by less than half of the candidates. Variation among the parties is found, but candidates from the two largest parties do not attain the highest scores. Candidates from the two fringe parties and the unrepresented party score lower, whereas candidates from the medium-sized parties score the highest on the online score.

The second analysis of the uptake of cyber-campaigning across candidates shows that even though there are bivariate relationships between each independent variable and candidates' online scores, when added up, only age and to some extent education seem to matter for the use of cyber-campaigning. Candidates who are more

than 48 years old score significantly lower than younger candidates, as do candidates with only high school or vocational schooling. In sum, this analysis seems to support the equalization perspective rather than the normalization perspective, due to the fact that incumbency and being placed first on the ballot remain insignificant in the model. That is, the prominent candidates—incumbents and candidates with first places on the ballots—are not more likely to use cyber-campaigning. This result only partly supports the previous analyses on candidates' uptake of cyber-campaigning, which have shown that incumbency also matters. The difference in results may be due to the difference in the types of candidates within multimember and single-member electoral systems. In single-member constituencies, few candidates campaign, and a large share of the candidates are incumbents and/or (fairly, very) safe. The variation among candidates within multimember electoral districts is larger, with incumbents from several parties and possibly more than one from several parties, as well as various degrees of likelihood of being elected in that some candidates are "safe," others might be elected, and still others campaign mostly for the sake of the party.

The third analysis, on the electoral effect of cyber-campaigning, shows that the online score has its own effect on the interparty competition for personal votes but does not have a significant effect when controlling for other relevant variables. The online ranks of candidates within party and constituency seem to be more important for intraparty competition; having a greater online presence than fellow candidates has a significant effect. In sum, however, no significant effect of cyber-campaigning remains after controlling for the various personal characteristics and campaign resources. As we find very little effect of cyber-campaigning (actually no significant effect after controlling for offline campaign activities), our findings challenge the entire relevance of whether cyber-campaigning could have an normalizing or equalizing effect on election campaign, as there is no effect left to push for either the normalizing or the equalizing perspectives.

Our results do not support previous studies that have shown that both Web 1.0 and Web

2.0 technologies have an impact, although this varies across parties and over time. We see two reasons for this difference.

First, it is interesting to see that a study including both online and offline campaigning efforts of a wider range of candidates from a larger number of parties within a proportional system with open lists and a multiparty system yields results that differ from those of previous analyses of the effects of candidates' (cyber-) campaigning within first-past-the-post electoral systems. As argued just above, this discrepancy may be due to the larger variety of candidates. Incumbency is not restricted to one party and one candidate within each district. The incentive structures that candidates meet also vary. In first-past-the-post systems, candidates know whether their seats are (very, fairly) safe, marginal, or (very, fairly) lost. Within multimember districts, the incentives for candidates to campaign for votes is larger because a contest takes place both between and particularly within parties in multimember electoral districts. The electoral district is more important in first-past-the-post systems than it is in multimember districts.

Second, the inclusion of comprehensive measures of both candidates' traditional campaigning resources and activities as well as of their media appearances may contribute to these results that differ from previous analyses with fewer independent variables. If candidates engaging in cyber-campaigning are campaigning actively in traditional, offline activities and have a successful media strategy, the effects of cyber-campaigning are overestimated if these measures are not included. Hence, it is important to include various measures when estimating the effect of campaigning—especially both online and offline campaign activities. This study shows that when included, the electoral effect of cyber-campaigning diminishes in the Danish case. Hence, we call for more studies on the effect of candidates' cyber-campaigning when other relevant variables such as campaigning activities and resources, candidate characteristics, and media coverage are included.

This study focuses on the character and effect of candidates' (cyber-)campaigning and hence provides only part of the story of the character and effect of cyber-campaigning. This choice enabled analyses of the direct electoral effect that analyses of overall party (cyber-) campaigning have not been able to yield. However, even these models explain less than half of the variation in candidates' shares of votes; hence they leave ample room for other variables at the level of parties, such as parties' overall campaign budgets, campaign strategy, party leader popularity, and the degree and type of both online and traditional campaign tools and activities applied. Hence, parties' cyber-campaigning may matter to their electoral results. Also, there is room for variables at the level of the electorate, such as political opinions, issue ownership, and economic evaluations, as well as at the level of the media, such as the coverage of both politics and policies during the campaign.

The potential effects of candidates' and parties' cyber-campaigning efforts do not only lie in the direct electoral effect of cyber-campaigning tools and activities. Recently, more focus has been on the indirect effects of these tools and activities via the two-step model. Hence, further analyses need to look into this topic both from the perspective of parties, as in their strategies and implementation of cyber-campaigning tools, and from the perspective of the electorate, as in how voters influence each other with cyber-campaigning tools.

In sum, even if cyber-campaigning does not seem to have an impact on the direct electoral fate of candidates, there is ample room for making an impact in other ways.

NOTES

1. Each constituency contains 6–12 nominating areas, and parties differ in how they nominate candidates, i.e., place the candidate at the top of the list within the nominating area. Parties either nominate one candidate in each of these nominating areas, nominate one candidate in several (e.g., 2–3) nominating districts, and leave the other districts to other candidates, or nominate the same candidate in all nominating districts.

2. One in six among the electorate at large received an e-mail from a party or candidate during the campaign, and only 6% received an SMS from a party or candidate. However, these tools seem to matter more to the voters when they seek out information themselves. Almost

one-third of the electorate has tried out a voting advice application, around one-third of the electorate has visited a party Web site or the like, and one in 10 has signed up for information themselves. Furthermore, a small share of 1.1–1.5% of the voters visit party Web sites but do not watch television news, hear radio news, or read newspapers, either online or offline. This information indicates that even if very limited at the time, Web sites do provide easy access for voters who are not otherwise following election coverage.

3. However, the number of subscribers is rather modest. A higher number of subscribers is reached by the Social Liberals, Christian Democrats, and Socialist People's Party (495–600), among which less than one-quarter of the candidates provide a newsletter.

4. As expected, the control variable size of the constituency has an impact across all four models; candidates receive a smaller share of the votes, the larger the number of votes cast within the constituency (because more candidates stand for election in larger constituencies).

5. It should be noted that the results are similar when the analyses are run with the simple variable "having a party Web site" instead of the "online score" (not shown).

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