11. **ARTICLE 4:** ASSOCIATIONS ONLINE: BARRIERS FOR USING WEB-BASED COMMUNICATION IN VOLUNTARY ORGANIZATIONS

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ABSTRACT

Despite the high adoption level of Facebook and other social network sites (SNSs) in Norway, local level voluntary associations have not embraced SNSs to the same degree. Regular websites are the main web representation, and information provision is the main function of the associations' web representations. Using quantitative data on website content and organizational characteristics we have analyzed which factors hinder SNS adoption. The results point to size and complexity of associations and to age-based digital divides among members as important factors for having a profile on a SNS. It seems that a certain numerical point must be reached in terms of organizational and community size, for SNSs to be useful. Also, older members, smaller economy and a low degree of formalization in associations might hamper the implementation of SNSs in associations. Using Norway as a critical case, this article contributes new knowledge about web communication in voluntary organizations, an increasingly important field of research internationally.

INTRODUCTION

Communication is essential for organizations, and new communication technology has been held up as one way to address challenges of increased competition, scarce resources and heightened scrutiny and demands facing voluntary organizations (Burt and Taylor 2000, 2003; Hackler and Saxton 2007). With the Internet, new opportunities have come for organizations to communicate internally and with the public. Through websites, organizations may communicate their views, goals and organizational information to interested recipients and potentially mobilize action and

resources. One of the latest and increasingly popular developments in web communication is social network sites (SNSs). Here, emphasis is moved from hierarchical and centralized mass communication, customary to traditional websites, toward a more decentralized, network-based, and many-to-many type of communication. The implementation of SNSs in organizations might therefore imply organizational and communicative changes, and different types of organizations will be differently conditioned to meet such changes.

Previous studies of web representation and website content provided by civil society organizations have often showed low or no website activity (Foot and Schneider 2006; Saxton and Guo 2011; Stein 2009; Van Aeist and Walgrave 2002). To test and further investigate such findings, we might perceive Norway as a critical case: a case with strategically important features regarding the topic of interest. These features include an extensive adoption and usage of the Internet and SNSs with 80 % of the adult population being daily Internet users (Vaage 2010) and 69 % of the online population being weekly users of the SNS Facebook (Enjolras et al. 2013). Norway has also a high per capita number of organizations (Wollebæk and Selle 2008) and extensive voluntary participation (Wollebæk and Selle 2002). These numbers indicate a great potential for organizations to communicate both internally with members and volunteers and externally, through websites and SNSs. In this respect, Norway is a particularly apt case for testing a hypothesis of low SNS and website adoption in local voluntary associations and to explore possible preventive factors for such adoption. If the claim of low website activity by organizations is valid, we should certainly see it in Norway. Organizational-level research on SNS adoption is scarce (Nah and Saxton 2012) and few studies have employed statistical analyses of how a majority of organizations are using websites, producing generalizable results (Garret 2006; Stein 2009). Also, local chapters of voluntary organizations are a fundamental part of the voluntary sector in Norway—connecting the individual level and the organizational level of civil society. As knowledge and research on the organizational level is limited, our focus is directed here. Using survey data with information on 1,104 associations' web representations and information on the traits of the associations, we

test hypotheses grounded in organizational theory and former empirical research. We aim to contribute new knowledge about web-based communication, an increasingly important topic facing voluntary associations. Using statistical analyses, with information on traits of over thousand voluntary associations and their web representations, we might discover mechanisms in the relationship between voluntary associations and web-based communication with application also outside the Norwegian context. First, we investigate the general adoption of websites and SNSs among local voluntary associations in Norway. Second, we compare the content of profiles on SNSs with traditional websites, focusing on five categories of content. Third, we discuss and investigate how organizational traits affect the implementation of SNSs and traditional websites.

FROM WEB 1.0 TO WEB 2.0

In this article, we investigate the use of websites and SNSs by local voluntary associations. A website is a collection of one or more webpages connected by hyperlinks, designed to convey information about a theme or a subject on the World Wide Web. In recent years, SNSs like Facebook have grown very popular. These are collections of websites, or profiles, linked with other such websites within a bounded system or web-domain (boyd and Ellison 2007). Typically these profiles, public or semi-public, represent individuals or groups who are linked in networks as ‘‘friends’’ or ‘‘followers’’. The main architecture of the individual sites is usually predefined by the site-provider (Facebook). With the massive growth of SNSs, there has been a gradual shift from one-to-many communication (typical for traditional websites) to many-to-many communication, or ‘‘mass self-communication’’ (Castells 2011). With SNSs the pattern of web communication is changing from being exchanges of information between a central unit and several local units to becoming more interactive between the local units using a shared medium (Van Dijk 2012). Popularly this communicational shift is referred to as a transition from web 1.0 to web 2.0 (Allen 2012; Madden and Fox 2006), pointing to new distinct features of the Internet where the users themselves produce, evaluate, and distribute content. These new

features might challenge the very logic of organizing and centralizing information, knowledge, interests, and decisive power within an organization. The new web services are concerned with social networks, the capabilities for linking people and information within networks, and with online commenting and discussion. Web 2.0 is supporting an ideal of participation where the users themselves are both the content creators and consumers (Beer and Burrows 2007). For voluntary organizations, the underlying structure of digital networks makes SNSs potentially very efficient in information dissemination and mobilization, but these benefits might come with a prize. With the introduction of networked many-to-many communication in organizations, the structure of organizational hierarchies might be challenged, making organizations more open and decentralized. Due to new means of coordination and control based on web technology the need for human-based coordination is reduced, and thereby also the organizational hierarchy (Castells 2009 [1996]). It has also been argued that the cost-reduction by web technologies on organizing collective action have made organizations less important (Shirky 2008).

As mentioned, web 2.0 is not only just about the specific SNSs but also about the web content: interactive communication, linkage of people and information in networks, and user generated material. Inspired by Stein (2009), we can distinguish five types of organizational web content. Even though different types of web content often are interrelated and mixed on organizations' websites, we distinguish them for heuristic purposes. Furthermore, these categories are not exhaustive in the sense that they represent all possible features of web content, but they do capture important information of organizational web presence (Stein 2009). One central trait of web representation is information. Here, the web allows for the dissemination of information regarding the organization and its views and issues. This information can be made available for interested recipients both inside and outside of the organization, to volunteers, the public or the press. The direction of communication here is one-way and one-to-many, from a central unit (organization) to one or more local units (receivers). This type of web content has been characteristic for web 1.0. Web content may also be important for interaction and dialog. Here, the direction of

communication is two-way, allowing feedback and responses (interactive communication) between central and local units and between local units themselves. In this respect, websites and particularly SNSs – as part of a transition to web 2.0 – may function as alternative arenas for discussion between different groups and for internal dialog between active participants and members in an organization, as well as arenas for a broader public debate. A third important trait of the organizational web presence is the potential for encouragement of action and mobilization and for the coordination of such initiatives. By providing information that encourages action, or more indirectly by galvanizing action through consensus mobilization, websites, and SNSs in particular might supplement traditional forms of mobilization. A fourth type of web content is lateral linkage. Hyperlinking to other websites is a strategic choice that acknowledges the presence of other actors and establishes an interconnected sphere of online sites. This can reflect an organizations' desire to offer information provided by others, and is a way for organizations to build networks or display connections to other organizations, persons, media, or businesses. Finally, websites and SNSs can be used for fundraising and resource generation through requests for donation, sale of merchandise and recruiting new members and volunteers (Stein 2009).

Regardless of the possibilities web-communication represents, it is paramount to differentiate between the potentials in technologies and how they are actually used. The existence of a potential does not insure that organizations will make use of it (Merry 2011). In a survey of the websites of the US social movement organizations (at the national level), Stein (2009) found that social movement organizations are not engaging heavily in communication on the web. The organizations are not utilizing websites to their full potential. With the exception of information provision, the majority of the organizations exhibit no or low activity on the web (Stein 2009). These findings are also supported by other studies, including studies outside the US (Foot and Schneider 2006; Gandia 2011; Rodriguez et al. 2012; Saxton and Guo 2011; Van Aeist and Walgrave 2002). Based on the prior findings of limited utilization of websites by voluntary organizations in the US, a country with a

relatively high internet penetration, we expect to find similar results in Norway for both websites and SNSs. We formulate separate hypotheses regarding the implementation of websites and SNSs. We also formulate one hypothesis regarding the content of the web representations. We expect that

Hypothesis 1a Local voluntary associations' level of website adoption is low.

Hypothesis 1b Local voluntary associations' level of SNS adoption is low.

Hypothesis 1c Local voluntary associations' web representations exhibit limited amounts and forms of content.

By analyzing our data we will put these hypotheses to the test. Following these expectations we will look further into potential reasons for an underutilization of the web by voluntary associations. Stein (2009) suggests a few reasons for such underutilization, two of them being organizational orientation and organizational resources. Organizations with different orientation – type, goals, strategies, and beliefs – may use and benefit from the communication differently, and organizational resources – time, skill, and funds – may decide if and how organizations utilize the web. However, Steins' own study showed no significant correlation between organizational resources and different types of web-based communication (Stein 2009). In the analysis-section we will investigate how different organizational traits, including measurements for orientation and resources, affect the implementation of SNSs, compared to regular websites. In the following section, we therefore discuss in more detail potential barriers for associations in implementing websites and SNSs.

BARRIERS FOR USING WEB-BASED COMMUNICATION IN ASSOCIATIONS

Different types of organizations will be differently conditioned to implement new means of communication and to meet changes following such implementation. Based on organizational theory and research we will discuss six factors that may inhibit organizations from adopting new communications technology. The six factors are:

size, inertia, structure, age-divide, resources, and orientation. The first factor—size—concerns how functional websites and SNSs are for organizations of different sizes. Although there could be several reasons for organizations to adopt new web technology—i.e., reputation, prestige, and pressure— we assume that websites and SNSs will be used by organizations only if it is more effective or functional than other means of communication. With web technology come mobility, a high volume and speed of information and communication processing and a vast reach of the flows of communication. With increasing size and complexity of an organization and the organizational environment, and a potentially large audience, the need for efficient means of communication will be great. SNSs is one of the latest developments in the field of communication, in which network technology makes the potential speed and the reach of information and communication very high, both in distance and numbers. However, this aspect might not apply for all types of organizations. In small associations in small geographical contexts, face-to-face contact and more traditional means of communication might be sufficient in the running of the association. The potential reach and communicative possibilities innate in the new technology might therefore not appear relevant for small and purely local associations. On SNSs specifically, a study of public health agencies have showed that even if the adoption rate of SNSs is low, the geographical scope of the agency (urban, suburban, large town, rural community) is significant in predicting adoption of SNSs (Avery et al. 2010). We hypothesize

Hypothesis 2a Smaller associations are less likely to adopt SNSs than bigger ones.

Hypothesis 2b Smaller associations are less likely to adopt websites than bigger ones.

A second factor is inertia—the resistance to changes in organizations. It may be argued that the adoption of new technologies for communication in organizations represent a core organizational change, which is something organizations generally resist (Hannan and Freeman 1984), and that different organizations are differently conditioned to or able to change. Structural inertia is argued to increase with age (Hannan and Freeman 1984). Old organizations tend to rely on existing routines, with

less ability to or need to adopt new structures. Stinchcombe (1965) claims that in the process of being institutionalized an organization develop its own traditions and values and will over time become less adaptive to its surroundings. The core traits of an organization, like structures of communication, are accordingly determined at time of founding. New organizations are born into an environment saturated with new communications technologies and naturally rely on the technology as a means to reach its ends (Porter 1985). Thus, we hypothesize

Hypothesis 3a Older organizations are less likely to adopt SNSs than younger ones.

Hypothesis 3b Older organizations are less likely to adopt websites than younger ones.

Third, we focus on the factor of organizational structure related to organizational change. In organizational theory, form and structure is important in explaining change and development within organizations. The work of Burns and Stalker (1962) identified the organic organizational form, with horizontal coordination and a lack of formally defined tasks to be the optimal structure in the adaptation to changing organizational environments. As communication in SNSs may resemble informal social settings to a greater extent, we might expect higher usage of SNSs in less formalized organizations (Burns and Stalker 1962). Similarly, Castells writes about the network-based organization as an increasingly dominating organizational principle due to flexibility of structure, size, and less central coordination and control. The structural flexibility has made the network-based organization more adaptable to an increasingly unstable environment in the networked global economy (Castells 2009 [1996]). The opposite, a mechanistic organizational form with formal and hierarchical structures, will be a barrier for change and adaptation to new areas like the new media environment. Contrasting this perspective, following Stinchcombe (1965), we might argue that organizations with a lack of formal structure are at a disadvantage in adapting to new areas. Establishing a web presence in organizations requires a minimum level of formalized coordination. Organizations with a strongly organic structure, more dependent on non-written face-to-face communication, may therefore

be unlikely to adopt written digital communication and SNSs. On this basis, we formulate two alternative sets of hypotheses:

Hypothesis 4a More formalized organizations are less likely to adopt SNSs than less formalized organizations.

Hypothesis 4b More formalized organizations are less likely to adopt websites than less formalized organizations.

Hypothesis 5a More formalized organizations are more likely to adopt SNSs than less formalized organizations.

Hypothesis 5b More formalized organizations are more likely to adopt websites than less formalized organizations.

A fourth factor is age-divide in technology adoption. In explaining the adoption of new technology, people's age is a central variable. One often speaks of a digital divide in which young people are in the forefront of adopting new communication technologies. In Norway the socially contingent digital divides are generally weak, but there is a generational divide between younger generations of ''digital natives'' and older generations who have adapted to digital tools in adulthood, but are less skilled or habitual in using the new technology (Enjolras et al. 2013). Studies in Norway also find that young people are more often users of SNSs than older generations (Enjolras et al. 2013; Enjolras and Segaard 2011). Old age of members is therefore likely to be a barrier for the adoption of websites and SNSs in voluntary associations. An important note here is the lower age limit on Facebook, which is 13 years old. Even though many children under 13 are on Facebook, registered with a false age, associations having mostly members under the age of 13 are believed to be less likely to be represented in SNSs. Still, we expect that

Hypothesis 6a Organizations with older members are less likely to adopt SNSs than organizations with younger members.

Hypothesis 6b Organizations with older members are less likely to adopt websites than organizations with younger members.

The fifth inhibiting factor we will discuss for implementing new communications technology in organizations is organizational resources. Former research have found that larger organizations are more likely to be early adopters of the Internet than smaller ones because they can afford to and they have the necessary technological and personnel resources already in place (LaRose and Hoag 1996). Larger organizations have also been found consistently to adopt innovations earlier than smaller ones, largely because of the financial advantages enjoyed by larger organizations (Flanagin 2000). A strong connection has been found between organizational wealth and the capacity to successfully translate the technology into improved organizational performance (Hackler and Saxton 2007), even though some studies have found no significant relationship (Corde 2001) or a negative relationship (Zorn et al. 2011) between budget size and adoption of new information technology. A more recent study has, however, found financial resources to be a key predictor for how interest groups are represented online (Merry 2011). Merry (2011) found that high levels of financial resources in organizations correspond to having more online content and reaching a larger audience (more website traffic and more in-links). She argues that even if the technology might be cheap, it still requires ongoing investment of time. It takes time and effort to tailor messages and design action requests. Well-funded groups will therefore be more capable than poorly funded groups to employ cutting edge technology and the latest web developments, like SNSs (Merry 2011). Thus, we formulate a seventh set of hypotheses:

Hypothesis 7a Organizations with fewer resources are less likely to adopt SNSs than organizations with more resources.

Hypothesis 7b Organizations with fewer resources are less likely to adopt websites than organizations with more resources.

The sixth and final factor we will discuss is organizational orientation. Referring to social movement organizations, Stein (2009) discusses organizational orientation (type, goals, strategies, and beliefs) as a reason for the underutilization of the web as a communication resource. Organizations focused on organizing professional resources may be motivated to use the Internet to diffuse information on the web but not to increase member interaction with the organization, while those focused on broader participatory resources may have more incentive to cultivate grass roots participation in organizational activities and actions (Diani 2001). One distinction in type of orientation is to what extent the organization works for the benefit of its own members (introvert) or for the benefit of the community (extrovert). One might argue that voluntary associations that exist primarily to the benefit of the internal members will have a weaker impetus for establishing channels of communication with the environment. With websites and particularly SNSs being tools for outwards communication, a community-oriented association would be more prone to use this technology than an introvert and member oriented association. We expect that

Hypothesis 8a Introvert organizations are less likely to adopt SNSs than extrovert organizations.

Hypothesis 8b Introvert organizations are less likely to adopt websites than extrovert organizations.

METHOD

DATA-SOURCE

In order to describe where local voluntary associations are represented online and what content they provide (the first set of hypotheses and analyses), and to analyze potential barriers for the implementation of websites and SNSs (hypothesis set 2 through 8) we use two sources of data: information on associations' web representation and information on the traits of the same associations. The two sources of data are merged through a unique identification number. The underlying information on associations stems from a census of local voluntary associations in

Hordaland County, Norway in 2009. We use data from 17 (of 33) municipalities, providing us with survey data from approximately 2,500 associations. [31] The associations included are involved within a wide range of fields, such as sports, politics, language, mission, alcohol abstention, music and arts, children's associations, social and humanitarian work, neighborhood activities, and culture and leisure. The results are primarily speaking for the local organizational life in Hordaland. Still, the composition of the organizational society in Hordaland is not very different from what we find generally in Norway, and we can assume that traits from the organizational life in Hordaland also apply for the Norwegian organizational life as a whole. As argued earlier, we also see Norway as a critical case, and therefore contend that our findings on the dynamics of SNSs adoption among local voluntary associations are relevant internationally as well.

COLLECTION OF WEBSITE DATA AND MEASUREMENT

In the Hordaland Survey, the associations registered their web addresses. This registration was complemented by web searches for missing addresses and constituted the offset for collecting information on the content of the websites. The coding of website content was conducted for websites that were up and running in the period between October 12, 2010 and November 17, 2011. Most websites were coded in the start of this period, but with some final searches for missing addresses toward the end of the period approximately 200 sites were coded in the fall of 2011. There is a potential for overlooking websites and Facebook profiles and to misspell in searches for associations' profiles. Associations could also have started using Facebook right after our investigation of their web presence. With this in mind, a total of 1,413 websites are included in the dataset, belonging to 1,104 individual associations. Because of the rapid pace of technological change, the analysis of associations' websites can only claim to provide a contemporary snapshot of voluntary

[31] The response rate for 16 out of 17 municipalities was 52 %. The response rate for Bergen, the second largest city in Norway and a municipality on its own was much lower—39 %. The Hordaland study is one of the most extensive and valuable collections of data on local voluntary organizations internationally. The 1999-version of the dataset is also used in the international Johns Hopkins survey of voluntary organizations.

associations' online representation at the time of the data collection, and the picture will inevitably date. Still, establishing this information now provides an essential benchmark for monitoring subsequent developments (Norris 2003).

The coding instrument for the collection of website data was developed in relation to existing literature and former studies of the content of voluntary organizations' websites (Norris 2003; Stein 2009). We distinguish between five central characteristics of websites: information, interaction and dialog, action and mobilization, lateral linkages, and fundraising and resource generation. The operationalization of the content categories is as follows: In the information category we investigate if the sites contain a frequently asked question section, information on organizational structure, newsletters, organizational statues or logs from meetings, information on upcoming meetings, organizational history, the purpose of the organizations, information or contact-information on the leader or the executive committee, information on upcoming activities or events or organizational related news. To measure interaction and dialog, the following items are included: option of downloading promoting-material, an e-mail list subscription function, an option of sharing the site on for example Facebook, a possibility for posting a comment, an exclusive member section or an encouragement for contacting the organization. In the action and mobilization category we look for four items, if the website contains an encouragement for signing a petition, if it encourages political acts or other political action or if it contains information on political issues the association is involved in. Concerning lateral linkages, on SNSprofiles we look for hyperlinks to other websites but we do not consider the friends lists or contacts/members of the association on the particular SNS. We register if each site contains specific hyperlinks to political parties, private individuals, public service portals, local media, county administration, international sites, local business, regional or national organizations or to other local associations. On the last category: fundraising and resource generation we register if the site encourages direct money donation or a donation via a specific Norwegian

system of supporting voluntary organizations: ‘‘the grass roots share.’’[32] We also look for the sale of services or merchandise and encouragement to sign up as a new member or volunteer. Two remarks are important to be made in regards to Steins’ analysis. First, we expand the focus from social movements to voluntary organizations more generally, including not only political organizations or interest groups, but the entire organizational society. Also, in this article we are comparing websites with SNSprofiles, where Stein only looked at websites. Therefore some adjustments of the categories have been necessary. [33] Due to different website structures between free to-design websites and ready-structured profiles in SNSs we compare only the content that can be defined as somewhat equally plausible to appear on a website and a SNS-profile. The web design of Facebook naturally structures the way organizations can present themselves and how, and what they can and cannot do or present on their profiles. Features like a dialog or comment function or the ‘‘share-function’’ are more implicit in the logic of SNS-profiles than websites. Also, the web design of Facebook is continually being changed, affecting what content might be published and how. These structural differences between websites and SNS-profiles may limit the validity of our comparison, but we still argue for the scientific relevance of such a comparison. For the analysis of content, the unit of analysis are the websites and SNS-profiles themselves. We use cross tabulation of percentages of websites and SNS-profiles containing each item of content.

MEASURING AND ANALYSING ADOPTION BARRIERS

The independent variables used for analyzing adoption barriers are based on several organizational traits. To measure size and complexity of associations the following explanatory variables are included: Population size of municipality, size of geographical area of coverage, number of volunteers, and number of members. By including population size of municipality we can also control for a contextual factor

[32] In Norway, the surplus from the national lottery goes to socially beneficial purposes. The ‘‘grass roots share’’ is a system where participants in the national lottery may decide, from a list of registered organizations, who gets 5 % of their bets.
[33] Due to absence of content we have also omitted a sixth content category of creative expression in the analysis. This is political or non-political web content in the form of art, poetry, visual art, video, music and parody.

indicating size and cross-level interaction between geographical area of coverage and population size of municipality. Inertia is measured by age of association. Structure is measured by degree of formalization in association: an index of five items identifying characteristics of formalization, for instance if the association has formal organizational bylaws or yearly reports. Age-divide is measured by age categories of members, resources are measured by the expenditure in association, and orientation is measured by self-reported degree of community orientation in association (see Appendix Table 4 for operationalization). The dependent variables are dummy-coded, representing presence or absence of one or several websites, or one or several SNS-profiles. To test our hypotheses concerning barriers for the adoption of SNSs, we use multilevel regression analysis (Appendix Table 3). This technique allows us to simultaneously model organizational level characteristics and the municipal level characteristic: population size of municipality. Here, we analyze the likelihood of having a SNS-profile or a website. A control for cross-level interaction is also included. This is a control for the modification of the effect of the size of each organization's geographical area of coverage by the size of population in the municipality. We do this because the effect of geographical scope might be different in a densely populated municipality than in a sparsely populated municipality. Because of missing data in membership and expenditures in associations, three different regressions are used. [34] One includes all associations and uses number of volunteers as the measure of group size. The second includes only membership organizations and uses number of members instead of volunteers as indicator of group size. The age composition of members is added to this analysis. The third regression includes only associations for which economic data is available using number of volunteers as indicator of group size. We present results from the regression analyses as figures showing predicted values, and leave the full regressions for Appendix Table 3.

[34] Many associations are not organized as member-associations and many did not respond to questions of expenditures in the organization. There were no significant differences in responses to questions of expenditures in regard to membership or type (ICNPO).

ANALYSIS OF ONLINE PRESENCE AND CONTENT

Our study shows that 45 % of all associations in the Hordaland-Survey have some form of web representation, amounting to 1,104 associations. 80 % of these are represented by a website, 17 % are on Facebook, 1.6 % are on Twitter, and 1.4 % have their own blog. A total of 75 % of the associations with web representation are represented by one website, 19 % are represented by two websites, and 6 % are represented by 3 or more websites—often one website and one or more profiles on different SNSs. This amounts to 1,413 websites in total. Table 1 (see below) displays the distribution of SNS-profiles and websites among different organizational categories (ICNPO). [35] The different SNS Facebook, Twitter, blogs, and other sites are collapsed into one category. Numerically, most websites—both SNS-profiles and websites—belong to associations within the three largest organizational categories: culture and arts, sports, and recreation, and social clubs. Adjusted for size of organizational category (percentages), international associations have the largest share of SNS-profiles, followed by political parties. These categories, plus sports associations, have also the largest shares of websites. By weighing for size of association—the number of members or volunteers in the associations—we observe that members of political parties and environmental associations are the ones best covered by an organizational SNS-profile. In total however, only 16 % of the organizational members or volunteers in Hordaland are connected to associations represented in SNSs. Contrary, 79 % are connected to associations with a website, leaving no support to hypothesis 1a—low level of website adoption. On the contrary, many associations do have regular websites. Hypothesis 1b is however supported, local voluntary associations have clearly not followed the adoption rate among Norwegians in general to log on to Facebook and other SNSs. [36]

[35] The international classification of non-profit organizations. A classifications system recommended in the United Nations handbook on non-profit institutions in the system of national accounts.

[36] Due to a distinct rise of Facebook adoption during 2010 and 2011 we could have expected a somewhat higher adoption rate of SNSs among associations by the end of 2011. No noticeable increase was observed in late 2011 compared to 2010.

We now turn to the content of these web representations, and we compare the content of SNS-profiles with the content of websites.

On the information category, a general observation is that more websites seem to contain information concerning the organization and organizational activities than do SNS-profiles. Only the posting of organizational related news is significantly more common on SNSs than on websites. Concerning interaction and dialog, the same pattern occurs; more websites than SNS-profiles have instances of interaction and dialog features. An exception from this pattern is the availability of a commentor posting function on SNSs. There is a clear over-representation of this feature on SNSs (47 %) than on websites (15 %). Although it might not be a surprise that this integral function of most SNSs are over-represented compared to websites, it is surprising that over half of all SNS-profiles have restricted access to outside comments or posts. This might be because some associations are using the SNSprofile primarily for internal and restricted communication.

Table 1: Number of websites, percentage of organizations with websites and percentage of websites weighted by number of members/volunteers in organization.

	SNS			Website			
	Number	%	% weighted by members/volunteers	Number	%	% weighted by members/volunteers	*N*
Culture/arts	112	17	33	251	47	71	471
Sports	58	15	13	235	62	89	339
Recreation/social clubs	55	9	21	213	42	73	431
Education	5	11	51	22	57	89	35
Health	4	10	2	17	32	74	41
Social	8	13	41	26	44	79	54
Environment/ animal rights	6	18	58	8	46	96	11
Community	6	4	6	29	16	29	172
Housing	1	3	1	4	16	24	31
Civic/advocacy	10	6	9	67	44	79	144
Political parties	15	23	62	46	65	83	65
Philanthropy/ volunteerism	1	17	22	2	33	45	6
International	16	37	41	20	63	83	30
Religion	14	4	2	43	14	84	325
Business/ professional	14	5	4	105	38	82	355
Total	325	11	16	1,088	40	79	2412

On the third content category, we observe that very few websites have features of political action and mobilization, and there is hardly any difference between websites and SNSs. This demonstrates that political action and mobilization is a small part of the total online content of local voluntary associations. Concerning lateral linking, most of the linking on websites was made to either other local associations (23 %), to a regional or a national level voluntary organization (16 %), or to local business often in relation to a sponsorship agreement (15 %). There were very few SNS-profiles with any hyperlinks. On the last category, fundraising and resource generation, websites had more instances, specifically of encouragement of ‘‘grass roots share’’ donation and member-signup, than SNS-profiles. The results from Table 2 support former research (Foot and Schneider 2006; Saxton and Guo 2011; Stein 2009; Van Aeist and

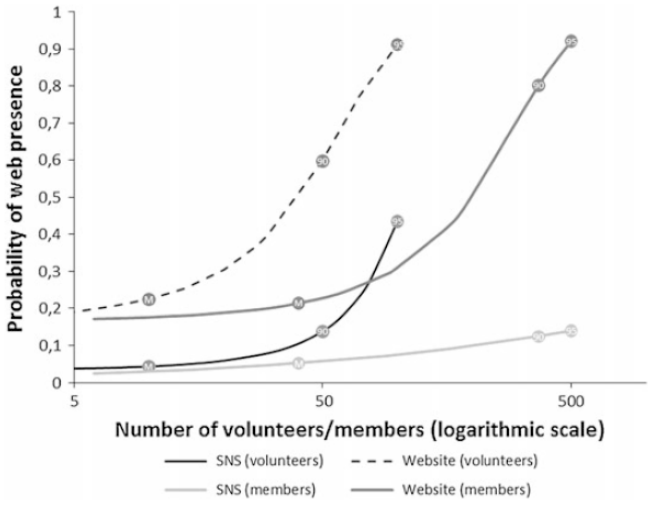
Walgrave 2002) that information provision, compared to other website functions, is the most prominent feature of organizational websites, both on websites and in SNSs. Another important finding is the relative small amount of total web content on the websites, also confirming results from Steins' study from 2009. These results confirm our hypothesis 1c that local voluntary associations exhibit limited amounts and forms of web content, especially regarding interactive communicative forms. Web 2.0 and SNSs have not become a significant part of associations' web presence.

Table 2: Cross tabulation of content of websites and SNSs percentages

	Websites %	SNSs %	Tot %	χ^2
Information				
Frequently asked questions section	1	0	1	0.100
Organizational structure	4	0	3	0.001
Newsletter	7	0	5	0.000
Statutes/logs from meetings	14	0	11	0.000
Upcoming meetings	16	10	14	0.005
Organizational history	38	22	34	0.000
Organizational purpose	49	50	49	0.931
Executive committee/leader	64	10	52	0.000
Upcoming organizational activities	55	49	54	0.060
Organization related news	63	71	64	0.006
Interaction and dialog				
Download promo-material	3	0	3	0.001
Email list subscription	4	2	4	0.019
Share	10	2	8	0.000
Post comment	15	47	23	0.000
Exclusive site for members	19	0	15	0.000
Contact	22	3	17	0.000
Action and mobilization				
Petition	0	1	0	0.002
Encourage other political acts	0	2	1	0.002
Encourage political action	1	2	1	0.123
Political information	7	6	7	0.439
Lateral linkages				
Political parties	0	0	0	–
Private individuals	2	1	2	0.118
Public service portal	3	0	2	0.006
Local media	3	1	3	0.086
County administration	6	0	4	0.000
International links	7	1	5	0.000
Local business	15	0	11	0.000
Regional/national organizations	16	1	13	0.000
Other local associations	23	3	19	0.000
Fundraising and resource generation				
Direct money donation	2	2	2	0.814
Sale/merchandise	5	0	4	0.000
Volunteer signup	5	3	5	0.050
Grass roots-donation	15	3	12	0.000
Member signup	20	2	16	0.000
Min *N*	1,088	325	1,413	

Barriers for Associations' Web Presence Following our findings of low SNS adoption and limited online content, we investigate the possible factors that inhibit associations in adaptation to the new landscape of web 2.0 and SNSs. What follows is a discussion of the results from the multilevel regression analysis (see Appendix Table 3). Figure 1 display the predicted values of the effect of the number of members and volunteers on having a website and being represented in SNSs. It shows the estimated probability of having a web presence for organizations with the median, the 90th and the 95th percentile number of members and volunteers. As expected it shows that group size is a key correlate of web presence, but the patterns vary. With regard to SNSs, a high number of volunteers seems to be important, while membership figures are less important. SNSs is mostly used by the few associations mobilizing 50 or more volunteers. The effect of higher number of volunteers and members is stronger on the likelihood of having a website.

Figure 1: Estimated effect of organizational size by number of volunteers and members on having a website and a SNS-profile



On the two other measures of organizational size; population in municipality of residence and geographical area of coverage (see Fig. 2 below), we find that a large population in municipality of residence (over 25,000) does not seem to affect SNS usage. It seems to be a threshold effect in which SNSs are less well suited in

largescale situations. The probability of having a website increases linearly with geographical area of coverage and community size (except those with large area of coverage in small municipality—but there are barely any empirical examples here). The analysis support hypothesis 2a, that smaller associations are less likely to adopt SNSs. It does however not confirm hypothesis 2b, that smaller associations are less likely to adopt a website. The results rather point to the opposite effect, that the larger the association (number of members and volunteers, and size of area of coverage geographically and numerically) the greater likelihood of having a website.

Figure 2: Estimated effects of geographical area of coverage and community size on probability of having a website and a SNS-profile

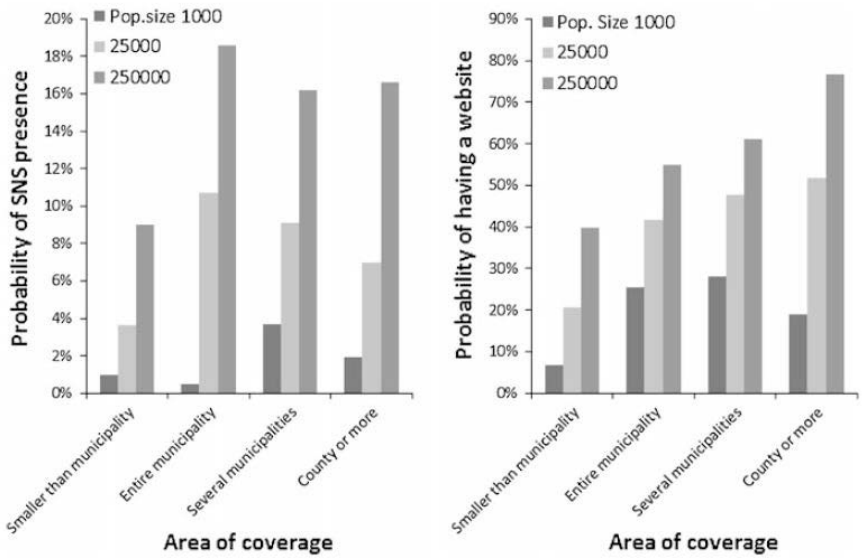
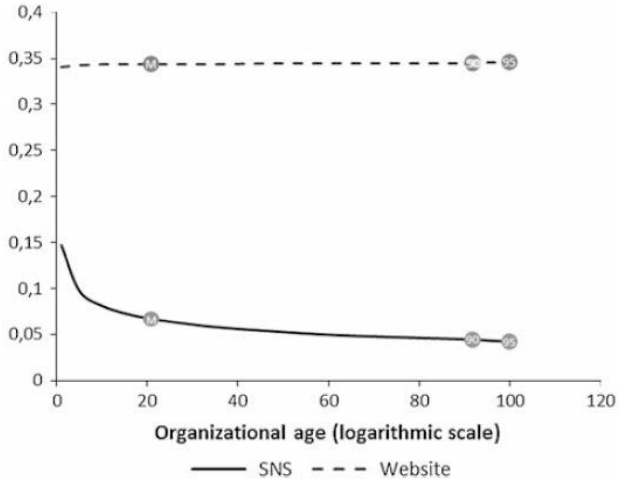


Figure 3 below presents the results from estimating the effect of organizational age. As expected in hypothesis 3a, organizational age decreases the probability of a SNS presence. However, the analysis does not confirm hypothesis 3b: that organizational age decreases the probability of having a website. This could mean that adopting SNSs entails a more profound organizational change than creating a website, in which the association loses control over the flows of communication. It could also mean that

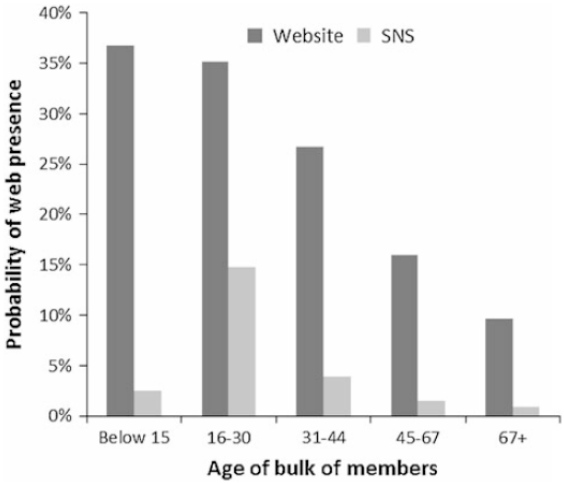
older associations are slower to adapt to the new media environment, and especially to SNSs.

Figure 3: Estimated effect of organizational age in the probability of having a website and a SNS-profile



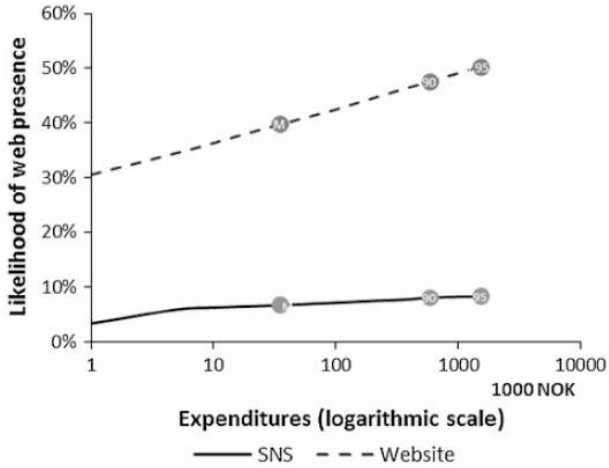
Still, when we control for age of members in associations (model 2 in Appendix Table 3), the impact of organizational age disappears. This means that the observed effect of organizational age might be caused by the fact that associations with younger members are more frequently recently founded, but it could also be a result of the selection of only membership associations in model 2 of the regression. As we observe from Fig. 4 below, SNSs is almost exclusively used by associations with a high proportion of members between 16 and 30. The probability of having a website is larger than for being present at the SNSs, but declines linearly with the age of the members. This supports our sixth pair of hypotheses, that organizations with older members are less likely to adopt both SNSs and websites.

Figure 4: Estimated effect of member age on the probability of having a website and a SNS-profile



Economic size is also a significant predictor of being represented in SNSs and for having a website, in support of hypotheses 7a and 7b (see Fig. 5 below). The relationship with SNSs is weaker than with websites. As expected, a small economy has a negative effect on web presence, or put otherwise, the larger economy in an association the higher probability of being online, especially to have a website. Financial resources might matter for websites, as websites often come with a financial cost in development and maintenance. The low effect of expenditures on SNS presence could be due to the costless access of most SNSs. Since the adoption of SNSs is free of charge, the size of an associations' budget might not be relevant in deciding to adopt or not. Other types of organizational resources, like time and people, might however matter more.

Figure 5: Estimated effect of economic size on the probability of having a website and a SNS-profile



In regards to degree of formalization in association, the analysis (see Appendix Table 3) shows that a higher degree of formalization increases the probability of having a SNS-profile and a website. This lends support to hypotheses 5a and 5b, not hypotheses 4a and 4b. Still, the estimated effect is larger for having a website. Also, an introvert oriented association is less likely to use SNSs, supporting hypothesis 8a. The relationship with having a website is, however, negative and not in support of hypothesis 8b. [37]

SUMMARY AND DISCUSSION

In this article, we have investigated the general adoption of websites and SNSs among local voluntary associations in Norway, analyzed the content of organizations' websites, comparing SNS-profiles and websites, and analyzed how organizational traits affect the implementation of websites and SNSs. Despite the high level of Facebook and SNS adoption in Norway, local level voluntary associations have not embraced SNSs to the same degree. Websites are the main web representation, and

[37] An additional analysis, a Heckman two-step analysis, of variation in web content was also conducted. However, this analysis did not provide many significant relationships between traits of associations and online content. The few significant relationships we found confirm some of the trends we have shown regarding traits of organizations and how they are represented online.

information provision is the main function of both web representations for voluntary associations. Analyses of potential barriers for SNS adoption point to size and complexity of organizations, and to age-based digital divide as important factors. First, it seems that a certain numerical point must be reached in terms of organizational and community size, for SNSs to be useful. Small associations in small communities with few active volunteers might therefore not gain much from adopting SNSs, contrary to larger and more complex organizations. Second, an age-based digital divide in the member base of associations is central for explaining SNS adoption. Most associations using SNSs are dominated by members between 16 and 30 years. If the member base of an association mostly consist of older age segments—non digital natives—it reduces the likelihood of using SNSs. Also, a small financial economy (resources) and a low degree of formalization (structure) in associations might hamper the implementation of SNSs. These explanatory factors affect the likelihood of using websites much in the same direction as with SNSs, only with a much stronger effect. Large size of organization, of municipal population, of area of coverage, and a large financial economy increase the use of websites. Older age of members, however, reduces website use with an almost linear effect.

What are possible implications of these empirical findings? What consequences will late adoption or non-adoption of SNSs have for the local organizational community and the organized civil society? First, for small and local established associations it might not matter at all, as face to face communication and other means of communications might work just fine. The potentials in the new communications technologies might not be relevant for these associations. Websites might be sufficient and serve the associations' informational needs, and the local associations might continue their activities and functions regardless of web 2.0. Following organizational ecology, a second implication might be that a gradual change in the organized civil society is underway, in which the associations most adapted to new communications technology will survive. The associations not adopting new communications technology may disband and lose ground to more case- and activist oriented-, network- and SNS-based groups, with consequences for the organizing of

collective action and the civil society in Norway. A third outcome could be that also the non-adopting associations of today will gradually adapt to the new communication environment as the young digital natives become older and gradually dominate the associations. With web 2.0 come great potential for information dissemination, communication and mobilization, but this also challenges established associations, putting more pressure on already scarce resources and challenging established control of organizational boundaries and lines of communication. A conscious attitude and an informed strategy in dealing with the new communications environment may be crucial in maintaining the interests of the associations and their constituents.

APPENDIX

Table 3 Multilevel (HLM, Bernoulli distribution) analysis of having a website and the SNS presence

	SNS			Website		
	Model 1	Model 2[a]	Model 3[b]	Model 1	Model 2[a]	Model 3[b]
Intercept	−3.49***	−6.35***	−3.26***	−2.16***	−5.01***	−0.266***
Municipal level						
Population size (log of 1000 inhab.)	0.41*	0.66[†]	0.344***	0.48***	0.52**	0.27***
Formalization (0–5)	0.13***	0.30***	−0.024	0.37***	0.49***	0.30***
Age of organization (log)	−0.29***	−0.06	−0.30**	0.008	0.077	−0.09
Employees (FTE)	0.036	0.11*	0.039**	0.046	0.096	0.329***
Community orientation (0–10)	0.037***	0.10**	0.019	−0.043*	0.004	−0.03
Geo. area						
Smaller than municipality	−0.65	0.75	−0.87***	−1.08*	−0.27	−1.43***
Population size	0.0001	−0.18		−0.08	−0.15	
Entire municipality	0.92	2.14	−0.012	0.39	1.17	−0.54*
Population size	−0.136	−0.40		−0.24***	−0.30[†]	
Several municipalities	0.068	1.44	−0.074*	0.52	1.04	−0.47*
Population size	−0.123	−0.30		−0.23**	−0.27	
Age of bulk of members						
Below 15		−0.21			0.81***	
16–30		1.63***			0.74***	
31–49		0.21			0.34*	
50–66		−0.72**			−0.30*	
67 and over		−1.26***			−0.88***	
Volunteers	0.031***		0.031***	0.041***		0.037***
Volunteers squared	−0.00011***		−0.00010***	−0.00012***		−0.00011***
Members		0.002			0.008***	

Table 3 continued

	SNS			Website		
	Model 1	Model 2[a]	Model 3[b]	Model 1	Model 2[a]	Model 3[b]
Members squared		−0.000003			−0.000008*	
Expenses (log)			0.060***			0.113***
N (municipalities)	17	17	17	17	17	17
N (organizations)	2,235	1,580	1,470	2,235	1,580	1,470

† $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$

[a] Only membership organizations

[b] Only organizations with available operating expenditures data. Age of members was excluded from the analysis, as it did not have any significant effects

Table 4 Operationalization of barriers for SNS adoption

Barriers	Variable operationalization	Coding
Size	Population size municipality	Logarithm of 1,000 inhabitants in municipality of residence
	Geographical area of coverage	Measures geographical scope from 1 = village to 8 = county or larger area
	Volunteer figure	Volunteer figure registered by organization
	Membership figure	Membership figure registered by organization
Inertia	Age of organization	Logarithm of year of establishment subtracted from 2009
Structure	Formalization	Index made from the summary of five characteristics: Organizational bylaws, balance sheets, membership lists, written minutes from meetings and yearly reports
Age-divide (digital/ knowledge divides)	Members under 15 years	Age category of most members. 1 = yes, 0 = no
	Members 16–30 years	
	Members 31–50 years	
	Members 51–66 years	
	Members 67 years or over	
Resources	Expenses	Logarithm of yearly expenses in organization
Orientation/ organization culture	Community orientation	Self-reporting of placement on a scale of 0–10. Community orientation = 10, member orientation = 0

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