From face-to-face to Facebook?

Web technologies in Norwegian civil society

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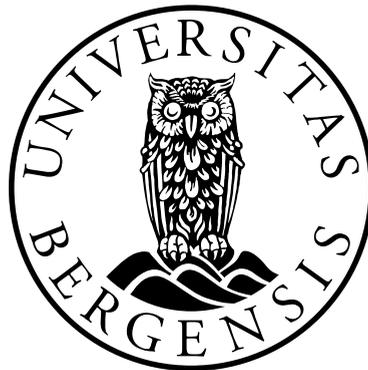
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Scientific environment

This doctoral project began on May 2, 2011 as a part of the project "Centre for Research on Civil Society and Voluntary Sector", a joint collaboration between the Uni Research Rokkan Centre in Bergen and the Institute for Social Research in Oslo. The Centre for Research on Civil Society and Voluntary Sector has received financing from several state ministries, primarily the ministry of culture. This particular doctoral project was partly financed through the Centre for Research on Civil Society and Voluntary Sector and by the Faculty of Social Sciences, University of Bergen.

During the doctoral project I have been formally employed at the Department of Sociology, while having my office at the Rokkan Centre. My main supervisor during the project has been Professor Mette Andersson at the Department of Sociology. My co-advisor has been Research Fellow Dag Wollebæk at the Institute for Social Research.

Acknowledgements

I would first like to thank my advisors Mette Andersson and Dag Wollebæk. Ever since Mette was my advisor during my master thesis, and now during my PhD, she has supported me and my research interests as well as guided me through the whole process of sociological inquiry. Dag has been a valuable support and advisor, specifically in relation to the articles using the quantitative methodology and in relation to the field of voluntary organizations and civil society.

I would also like to thank my colleagues in Bergen for methodological advice and comments on the texts, specifically Hans-Tore Hansen, Dag-Arne Christensen, Bjarte Folkestad, Kristin Strømsnes and Kjetil Lundeberg. Likewise, the PhD seminar at the Department of Sociology has been a valuable source of critical comments and discussions in relation to my own textual contributions as well as basic sociological questions. I have also enjoyed many pleasant social gatherings with the PhD group after our seminars.

I have also had the good fortune of being part of a collaborative research center between the Rokkan Centre and the Institute for Social Research in Oslo. Being part of this center has given me access to a valuable network of knowledgeable colleagues and researchers, information and data. It has given me opportunities for scholarly and field specific training and, not least, many interesting and joyful seminars.

I want to thank the people at the Rokkan Centre in general for supplying a scholarly, socially and physically stimulating work environment. This applies as well to the research groups I have been part of for commenting on and discussing my work and the lunch group for providing a relaxed space for breaks in between the academic battles. The coffee machine also deserves a thank you.

Last but not least, I want to thank my dear Carima for contributing to a happy and meaningful life outside of work.

Preface

The idea for this thesis was conceived during my tenure as research assistant at the Rokkan Centre on the project Centre for Research on Civil Society and Voluntary Sector. Following my master thesis work, and combined with (for me) new areas of research, voluntary organizations and civil society, I wanted to explore and investigate the implications of the internet and social network sites for voluntary organizations and for civic participation. The basic idea started with a short statement, or rather, a part of a question: from face-to-face to Facebook? Along with being a catchy phrase, this question seemed to encompass much of my research interest in the sociological implications of new communication technologies: what happens to society when communication is increasingly done using technologies such as the internet, e-mail, websites, and social network sites?

Having worked mostly qualitatively during my master degree, I jumped into the more quantitative realm of social science during my time as a research assistant. This made me realize the benefits and limitations of both sets of methods, and I have learned to appreciate and value methodical pluralism to investigate, understand and try to explain social phenomena. Thus, when I was granted a stipend on a project based in quantitative research, I wanted to combine it with qualitative research. I owe thanks particularly to my co-advisor Dag Wollebæk for supervising the setup of the quantitative analyses in this dissertation.

The research process has been filled with both ups and downs, good and not so good periods, but I have learned that steady work and persistence eventually pays off. Most of my time has been spent at my office at the Rokkan Centre, but I also spent a short period at UC Berkeley to write up one of my articles. During this period, with the help of some acquaintances, I got the opportunity to visit the campus and offices of perhaps the two most important web companies in the world, Google and Facebook. It was fascinating to observe and experience the contrast between the elaborate technological optimism in Silicon Valley and the critical perspectives on technology

and society at the Berkeley campus. It was a useful experience to see firsthand that what most people perhaps think of as "just a website" is also a place, a large company, a diversity of people, and a huge industry. I experienced what sort of manpower and effort is needed to run and develop such a large website and that the production of this technology is both a physical and social process before it enters the screens of users, along with the social shaping of the technology in the hands of the users.

During the three years of my doctoral project I have also participated in the PhD group at the Department of Sociology, where monthly seminars are arranged in which the candidates present and discuss various texts tied to their doctoral projects. At the Rokkan Centre, I belonged to and participated in the research group Culture, Power and Meaning and the group for Citizenship, Migration and Health. I also regularly participated in internal seminars and contributed to conferences and presentations by the Centre for Research on Civil Society and Voluntary Sector, and I have been affiliated with the project Social media and the new public sphere at the Institute for Social research. While at Berkeley, I participated in a seminar series on new media, arranged by the Berkeley Centre for New Media. The affiliation with and participation in these various groups and networks has been of great help in shaping my doctoral project.

In empirically based journal articles, there is limited space in each article to discuss and form more general theoretical perspectives supporting a whole dissertation. In this general introduction, I will provide a more elaborate discussion of relevant theoretical perspectives behind the whole doctoral project.

Writing this introduction toward the end of this three year project, has been a very interesting task by allowing me to raise my perspective beyond the defined and concrete articles and frame my research in a somewhat wider context.

Any errors or mistakes in this dissertation are my own responsibility.

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Abstract

Using a mixed methods approach, this article-based thesis investigates some of the implications of web technologies for political participation and for voluntary organizations in Norway. First, in a general theoretical and methodological introduction to the articles, concepts, theories and existing research concerning civil society, network society, political participation, social construction of technology and mixed methods research are discussed. Second, in four individual journal articles, four specific research questions are addressed:

Article 1: Diffusion of online political participation. Urban context and social network. This article is based on analyses of survey data from active social network site users in Norway. It is concerned with how our social context, in terms of urbanity and social networks, is related to political participation on the social network site Facebook. It indicates that rather than an urban-rural divide in the diffusion of new political forms on Facebook, other factors – most significantly traits of social networks – seem to be related to political participation on Facebook. Diversity in types of Facebook contacts and in offline discussion partners is positively associated with political activities on Facebook.

Article 2: *Web Technologies in Practice. The Integration of Web Technologies by Environmental Organizations.* In the second article, using a case study approach, I investigate three Norwegian climate and environment protection groups to explore the meanings and implications surrounding web communication. Here, I am investigating the social construction of the web as a medium: how web technologies can shape and be shaped by organizational norms and culture. The article discovers different enactments of practices surrounding web technologies, representing a variation between centralized one-to-many communication and a more decentralized many-to-many communication. Different structures, norms and cultures in organizations shape the implementation of and practices surrounding web technology, and the technology may further reinforce these structures, norms and cultures in organizations.

Article 3: *Internet communication: Does it strengthen local voluntary organizations?*
Analyzing survey data from voluntary organizations, article three is concerned with
how the structure of communication through the internet is related to organizational
change, face-to-face activities and the sustainability and vitality of voluntary
organizations. The analyses indicate that the use of e-mail and the web, but not social
network sites, is extensive in local voluntary organizations, particularly in larger and
younger organizations, in urban organizations, and in organizations with a higher
proportion of younger members. The internet is used mostly as an administrative tool
and as a one-way channel of information. The use of the internet is positively
associated with increased activities and membership in the organizations but is also
related to a centralization of organizations.

Article 4: *Associations online: Barriers for Using Web-based Communication in
Voluntary Organizations.* Article four asks what barriers might exist for
implementing new communication technologies in local voluntary organizations.
Analyses of survey data from organizations and data on their web representations
indicate that a certain numerical point must be reached in terms of organizational and
community size for social network sites to be useful in voluntary organizations. Small
organizations in small communities with few active volunteers do not adopt social
network sites as much as larger and more complex organizations. Also, if the member
base of an organization mostly consists of older members, the financial economy is
small, and the organization has a low degree of formalization, it reduces the
likelihood of having a social network site profile.

With regard to the question in the title of this dissertation "From face-to-face to
Facebook?" the four articles point to different implications of web technologies on
face-to-face communication in the Norwegian civil society. They show that political
participation can take place on Facebook as well as through face-to-face encounters
and that although communication through Facebook is not widespread among local
voluntary organizations it can supplement face-to-face communication in the running
of some organizations. The articles show that general internet use in organizations is

positively associated with face-to-face activities in organizations and that face-to-face communication and other traditional forms of communication might be sufficient in the running of some organizations, limiting their use of new communication channels such as Facebook.

Summarizing the empirical findings, and in relation to the theoretical discussions in this thesis, I argue that this thesis points to a two-sided story of the implications of web technologies in the Norwegian civil society. On one side, web technologies in the form of web 1.0 with traditional web sites and one-way communication are widespread among local voluntary organizations. A traditional logic of organizing and centralizing information, knowledge, interests and decisive power in a formal organization with defined boundaries seems to be in agreement with the logic of web 1.0. The use of web 1.0 technologies is positively related to signs of organizational growth and vitality as well as to a centralization of organizations. Established voluntary organizations can implement social network sites in their organizational communication, but it seems to be driven by the traditional organizational logic of centralized one-way information dissemination to a defined audience.

The other side of the story is the increasingly decentralized many to-many-communication of web 2.0, which favors less constrained individuals connected through social networks mediated by web technology. Accordingly, web 2.0 seems to clash with the logic behind established formal and centrally controlled organizations. This thesis finds traces of a network individualization process in regard to the diffusion of new forms of political participation on Facebook, which seems to be more related to the traits of our social networks both on- and offline than the traits of our place of residence. Also, in newly initiated groups and networks less constrained by institutionalization and structural inertia, the web 2.0 features will more easily be implemented and used for multi-way communication, mobilization and participation in less centralized networks.

List of publications

Article 1:

Eimhjellen, I. (2014) Diffusion of online political participation. Urban context and social network. Submitted to Journal of New Media and Society June 03, 2014.

Article 2:

Eimhjellen, I., (2014) Web Technologies in Practice. The Integration of Web Technologies by Environmental Organizations. Journal of Media, Culture and Society. In press, June 2014.

Article 3:

Eimhjellen, I. (2013) Internet communication: Does it strengthen local voluntary organizations? Nonprofit and Voluntary sector Quarterly. Online first, May 23, 2013. DOI: 10.1177/0899764013487996

Article 4:

Eimhjellen, I., Wollebæk, D., Strømsnes, K. (2014) Associations online: Barriers for Using Web-based Communication in Voluntary Organizations. Voluntas International Journal of Voluntary and Nonprofit Organizations. 25 (3).730-753. DOI 10.1007/s11266-013-9361-x

Contents

1. INTRODUCTION

1.1 GENERAL THEME AND RESEARCH QUESTIONS

The aim of this thesis is to investigate, from different perspectives, the implications of web technologies with respect to political participation and voluntary organizations. [1] In the four research articles comprising the second part of this dissertation, I specifically ask the following:

1) How do new forms of political participation through Facebook differ by the level of urbanity in municipalities, and how are the characteristics of social networks related to this type of online political participation?

2) How can web technologies shape and be shaped by organizational norms and culture?

3) How is the structure of communication through the internet related to organizational change, face-to-face activities and the sustainability and vitality of voluntary organizations?

4) What barriers might exist for the implementation of new communication technologies in local voluntary organizations?

In light of relevant theory and past research, and by analyzing different sources and types of data, I will respond to these four research questions in the individual articles.

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[1] The terms voluntary organization and voluntary association are used somewhat interchangeably in this thesis, but they are meant to refer to the same type of organizational entity. The term voluntary association is mostly used in article four.

In the first part of this dissertation, I will provide a thematic and theoretical context for and methodological discussions related to my own research.

1.2 THEMATIC CONTEXT

In the contemporary Western world, digital communication is said to have become the nervous system of our society and vital for all other societal infrastructures. Our communication and social interactions are increasingly conducted with the aid of mobile and web technologies. As individuals, we are dependent on electronic communication networks to conduct our daily lives, for work, for personal communication, for information, for entertainment, for public services and for politics. Electronic communication has become a key prerequisite for participating in groups, networks and communities. Additionally, organizations and larger social systems are dependent on electronic communication networks, internally, externally and, not least, globally. Contemporary organizations and social systems can no longer function without web communication, digital devices and networks. Although the internet only became popular some 25 years ago, it is said to have changed society at a massive scale. It has changed the preconditions for and structures of how we communicate and participate, interact and organize, with subsequent implications for society, community, equality, democracy, freedom and safety.

Norway is a particularly interesting case when studying the social implications of web technologies, with 97 percent of the population having internet access (via broadband and other forms) (Engedal et al., 2010) and 80 percent using the internet on an average day (Vaage, 2013) for activities such as news consumption (73 percent), e-mail correspondence (63 percent), information searches (44 percent), online banking (36 percent), and tv/video entertainment (35 percent) (Vaage, 2012). Norwegians are among the most active populations on social network sites worldwide, with 67 percent of the population being daily users of the social networking site Facebook (Gallup, 2013). Facebook also recently became the largest medium in Norway, and enjoys the

highest daily coverage, just above the public broadcasting channel NRK1 (Kampanje, 2014).

The extensive use of web-based forms of communication in Norway makes questions concerning the implications of the technology for civil society pertinent. Civil society can be briefly defined as the social sphere between the state, the market and the private sphere (Janoski, 1998) and serves as the context for interactions between citizens and the state. Participation in civil society can include acts such as voting, membership and activity in political parties and organizations, engagement in interest groups or voluntary organizations and in community affairs, demonstrations or other collective endeavors not managed by the state or the market. Through web communication, individuals and groups now have their own tools for organizing. Web communication facilitates collective action among individuals and groups with common goals, regardless of location and without necessarily requiring the costs associated with the classical organizational apparatus that has traditionally served to facilitate shared action (Bimber et al., 2012). It is easier to individually announce, mobilize for and organize events and demonstrations, have a voice and participate in public debate through web technologies.

The new participatory forms permitted by web technology may also challenge the status of traditional voluntary organizations – considered to be the backbone of civil society (Putnam, 2000). Digital communication, mobile and web technology may change existing organizations, their roles, functions, actions and structures. If organizations are open to it, web technology can facilitate donations, petitions and registrations for volunteer work or membership in organizations. Web technology can provide channels for one-way, two-way and multi-way communication within and between organizations and between organizations and their environments, thereby possibly changing the forms and structures of organizations. However, the forms and intensity of web technology use are not evenly distributed. Some types of organizations and individuals will adopt the new technologies and social forms, while some will not. While the vast possibilities of web technologies may be exciting and

new, these digital environments may also merely simulate the mundane outside world.
[2]

1.3 THESIS OUTLINE

In order to formulate specific hypotheses and expectations for the empirical analyses in the articles in this thesis, several theoretical perspectives and concepts and former research are introduced and discussed. In this introduction to the articles I will present a more general discussion of relevant sociological perspectives, thereby providing a more coherent context for the articles. In the theory section, three main issues are discussed. First, as a theoretical background for the empirical field of research, I will discuss the concept of civil society in relation to political participation and voluntary organizations. Second, I introduce and discuss the theory, or theories of the network society to provide a theoretical backdrop for investigating the societal implications of web technology. Third, to position my own research, I will discuss certain basic distinctions in the sociology of technology and web technology. This is followed by a section on previous studies conducted internationally and in Norway in this field of research. The methodology section emphasizes the methods and sources of data I have used in this thesis, with a focus on the mix of methods and forms of data. I conclude this general introduction with a summary of the individual articles and concluding remarks concerning the main research questions and the empirical and theoretical contribution this thesis makes to the field of research. The four articles will appear after this general introduction.

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[2] Although it is not particularly addressed in this thesis, web technologies may of course also have their "dark side" with negative consequences for democracy, freedom, participation, and society. An example of literature with this type of focus is (Morozov, 2011)

2. THEORETICAL PERSPECTIVES

Although the individual articles can be read and understood independent of one another, one purpose of this theory section is to provide an overarching theoretical framework for the articles. Here, I will provide a more extensive discussion of the relevant theories and concepts than was possible in the individual articles. [3] First, theories of the civil society are discussed to conceptualize and frame my empirical field of research. Second, I discuss theories of the network society to provide a more general theoretical backdrop for investigating the role of web technologies in contemporary society. Here, I also introduce the concept of network individualization and a typology of contemporary forms of collective action to discuss the potential implications web technologies have for voluntary organizations in general and new forms of political participation in particular. Third, to position my own research, I also consider it important to discuss a basic theoretical distinction in the sociology of technology and web technology, that between technological determinism and a constructivist perspective on technology.

2.1 CIVIL SOCIETY, POLITICAL PARTICIPATION AND VOLUNTARY ORGANIZATIONS

Because the empirical field of research in this dissertation centers around political participation and voluntary organizations, a discussion of the concept of civil society is appropriate. Civil society is a contested and occasionally confusing concept, with numerous different definitions and understandings. In this section I will not attempt to provide any complete or coherent definition of civil society, but I will attempt to

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[3] Because each article has a specific focus within the general themes and research questions of this thesis, none will include all the theories and concepts discussed in this theory section. Furthermore, certain theoretical concepts used in the articles are not included in the discussion in this theory section.

present some of the diverse perspectives and how I will use the concept of the civil society in relation to voluntary organizations and political participation.

CONCEPTUALIZATIONS OF CIVIL SOCIETY

Aspects of discussions of the concept of civil society can be linked to a disciplinary divide in the study of collective action, namely the divide between sociology and political science. As della Porta and Diani (2011) describe, civil society research is often situated within political science, while studies of collective action in social movements are generally situated within sociology. [4] However, in practical terms, researchers who claim to be primarily interested in either social movements or civil society often end up with similar questions and empirical objects of analysis. Voluntary organizations and social movement organizations are occasionally merely different labels for the same type of entity (della Porta and Diani, 2011). Nevertheless, there are clearly differences between these two perspectives on collective action. While conflict, contention and collective identity have been key elements in social movement research, civil society analysts often focus on generally institutionalized and less contentious collective action and on democracy and civility (della Porta and Diani, 2011). In this dissertation, I employ civil society as an overarching concept of which social movements, social movement organizations, NGOs, and voluntary or grass-roots organizations and groups are central elements.

In a widely used definition, civil society is regarded as "the sphere of uncoerced human association between the individual and the state, in which people undertake collective action for normative and substantive purposes, relatively independent of government and the market" (Waltzer, 1998: 123-124). However, this definition is broad and elastic and can encompass several different interpretations (Edwards, 2011). According to Edwards (2011), we can distinguish three main

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[4] There are several attempts to bridge and mix perspectives from these two disciplines, and numerous studies can be situated between the disciplines.

conceptualizations of civil society in the literature: 1) as a *part of* society, 2) as a *type of* society, and 3) as *a space* for citizen action and engagement.

When civil society is understood as *a part of society*, it is often equated with voluntary organizations. Because citizen action, participation and deliberation require some type of infrastructure to be expressed, a focus on voluntary organizations and groups seems appropriate. However, as Edwards (2011) argues, this perspective draws heavily on how Alexis de Tocqueville perceived American civil society in the mid-nineteenth-century (de Toqueville, 2000 [1835/1840]). This perception is not necessarily applicable to other contexts exhibiting differing cultures of collective action or to other time periods. We must acknowledge that different contexts and societies provide diverging cultures of collective action. There is also a wide range of forms and types of voluntary organizations, differences in size, purposes, levels of formalization, and differences in relationships with other organizations, the state, and the market. Here, I agree with leading scholars in the field who contend that this necessitates a context-specific approach to civil society; civil society cannot mean one thing in every context (Edwards, 2011; Janoski, 1998). Hence, this thesis is first and foremost concerned with the Norwegian civil society, which I will discuss more specifically in the next passage.

According to Edwards (2011), when civil society is understood as *a type of society*, it tends to be conceived of as the ideal type of society in which individuals would want to live, that is, a "good society" with democracy, civility, diversity, equality or freedom. In such a conceptualization, norms and values concerning the preferable type of society predominate. Under certain interpretations, there appears to be a direct relationship between a "strong civil society", "a society that is strong and civil", and the "good society" (Edwards, 2011). This notion has been heavily criticized, particularly in the aftermath of Robert Putnam's (Putnam, 1993; Putnam, 2000) theory of social capital and its effects (Edwards, 2011), in which Putnam states that he presents " … evidence that social capital makes us smarter, healthier, safer, richer, and better able to govern a just and stable democracy" (Putnam, 2000: 290). However,

researchers contend that convincing evidence of such a relationship between social capital and these positively valued societal consequences has yet to be presented (Van Deth and Zmerli, 2010). Social capital may also have a "dark side" (Van Deth and Zmerli, 2010; Callahan, 2005; Fiorina, 1999). A common response to this perspective is that understandings of what the "good society" is are a matter of norms and values that vary widely within and between societies. The "good society" is also dependent on the forms and interactions among numerous other societal institutions, rather than civil society alone (Edwards, 2011; Van Deth and Zmerli, 2010).

The third conceptualization of civil society where it is understood as *the space for citizen action and participation*, emphasizes the processes of citizen participation and structural conditions that frame (expand or limit) the participation of individuals and groups. Macro-level issues such as the degree of security, equality, and civil and political liberties will shape the ability of any population to activate their citizenship in the public sphere. A major concern here is the condition of the public sphere and civil society relative to the "hyper-individualism" of the market sphere and the pressures of performance, output, steering and repression from governments.

In this dissertation, I consider civil society to be a part of society in the sense that civil society is the sphere in which citizen action and participation occur and voluntary organizations operate. This is the social sphere in which I conduct my empirical studies of the possible implications of web technologies. Regarding citizen action and participation, I specifically study forms of political participation conducted through the social networking site Facebook. Here, I apply a conceptual scheme of political action that acknowledges numerous types of acts and actions as being political, ranging from manifest and formal political actions to more latent and pre-political actions (Ekman and Amnå, 2012). In this conceptual scheme, several actions conducted through social networking sites can be regarded as political, for example, membership and participation in protest or interest groups on Facebook or the posting and discussion of societal and politically oriented news links on Facebook. I have investigated voluntary organizations from a wide range of fields. In article two, I

investigate three organizations in the field of climate- and environment protection. The statistical data used for the analyses in articles three and four come from organizations operating in a variety of fields, such as sports, politics, language, missionary activities, alcohol abstention, music and the arts, children's organizations, social and humanitarian work, neighborhood activities, and culture and leisure. In this dataset, voluntary organizations are defined as non-state and non-commercial actors, with organizational activity rooted in voluntary participation with an ideological or political basis.

Because my thesis focuses on the implications web technologies have for voluntary organizations and citizen participation, it does not explicitly address the norms and values of a "good society". Nevertheless my thesis is implicitly related to a research tradition in which the strengths and dynamics of voluntary organizations and citizen participation are considered important for values such as democracy, equality, diversity and freedom, which are often included in a Western or de Tocquevillian conception of the "good society". Although there are likely numerous studies focusing on the "positive" effects of voluntary organizations, which also take their positive functions in society for granted, in civil society scholarship, we also need to recognize that different types and forms of organizations may have different functions, including negative ones. The ultimate consequences depend on the types of civil society and organizations we are considering, and our conceptualization of the good society. This again suggests that a context-specific approach to civil society is preferable. In this thesis, Norwegian civil society serves as the context and is the topic of the next passage.

NORWEGIAN CIVIL SOCIETY, VOLUNTARY ORGANIZATIONS AND CITIZEN PARTICIPATION

Perceiving voluntary organizations as a fundamental component of civil society, the Norwegian model of civil society has certain specific characteristics that distinguish it from its international counterparts. Organized civil society is particularly vital in Norway, which exhibits extensive participation in voluntary organizations in terms of

membership and voluntary work (Wollebæk and Selle, 2002) and a high per capita number of organizations (Wollebæk and Selle, 2008). This makes voluntary organizations a larger and more important part of Norwegian civil society than in many other countries. Despite a general international process of professionalization over the years, Norwegian voluntary organizations are less professionalized in terms of paid staff, and most activity is performed on a volunteer basis. Additionally, rather than being dominated by the provision of welfare services, as is the case in many other countries, activities in Norwegian organizations are predominantly *expressive* (Salamon and Anheier, 1998), meaning they are oriented toward interests, hobbies and leisure. This is related to the large welfare state in Norway, which is responsible for most welfare provision. [5] Despite the dominance of expressive organizations, voluntary organizations in Norway are considered to play important political roles as mediating structures between individuals and the state. Compared to many other countries, and in contrast to much Anglo-American citizenship theory (Trägård, 2007), Norway (and other Nordic countries) has both a large public or state-sector and a large volunteer sector.

The concept of membership also has particularities in the Norwegian context, in which more volunteers are connected to organizations as individual members (passive and active) than in many other countries. In Norway, members and volunteers are primarily affiliated with voluntary organizations at the local level where they participate and are connected to the organizations' internal democratic structures. The local organizational level is considered the foundation of organized civil society. A further distinguishing characteristic of Norwegian civil society is the hierarchical structure of most organizations which operate at a local, regional and national level (Selle and Øymyr, 1995; Wollebæk and Selle, 2002). Instead of having separate organizations at the local and national levels, which is more common in the rest of Europe and the US, Norwegian organizational society is more integrated, with

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[5] Voluntary organizations also engage in welfare production in Norway, which is financed by the state.

organizations generally operating at a local, regional, and national level; they serve as a mediating structure between citizens and the state. This reflects an imitation of the administrative levels in the Norwegian political system in the period between the mid-1800s and mid-1900s, in which most organizations chose to adopt the same organizational structure as Norway's political parties (Wollebæk and Selle, 2002; Rokkan, 1987). Historically, in a country that covers long distances and has a challenging communications infrastructure, this organizational structure is intended to integrate rural and urban areas, the center and the periphery in Norway.

Having established these central characteristics, we also need to recognize that civil society, and the rest of Norwegian society, is not static. Processes of migration, individualization and digitalization, increasing private resources and changes in public policy all affect the development of organizations and participation in civil society. Although at a smaller scale than elsewhere, we can observe changes in keeping with international trends, namely, a more reflexive form of volunteering (Hustinx and Lammertyn, 2003) with fewer bonds between organizations and individuals, and more non-committal, short term and instrumental volunteering (Wollebæk and Sivesind, 2010). At the organizational level, voluntary organizations have met the calls for professionalization and become more centralized and bureaucratized (Tranvik and Selle, 2008). We can also observe an increasing divide between purely local and national organizations (Christensen et al., 2011). In several ways, Norwegian civil society has become more similar to that of the rest of Europe.

2.2 A NETWORK AND INFORMATION SOCIETY

In 1977, Daniel Bell made one of the first sociological contributions to the study of the social impact of digital communications technologies (Bell, 1977). He regarded the social organization of new communications technology as the most central issue

for post-industrial society. [6] Although information and communication technology has been central to several sociological contributions to the understanding of contemporary society since then, the most relevant is perhaps the theory, or theories, of the network society, which have a particular focus on how information and communication technologies have shaped the social structure of society. The best-known contributor to this theory is Manuel Castells.

Through his decade-long work on the trilogy "The Information Age, Economy, Society and Culture" (Castells, 1996; Castells, 1997; Castells, 1998) Castells has developed a general social theory that is a global theory of the network society. [7] In the new preface of the 2010 edition of the book "The Rise of the Network Society" (Castells, 2010 [1996]), he contends that around the year 2000, a number of major social, technological, economic, and cultural transformations coalesced to give rise to a new form of society: the network society. According to Castells, the network society historically evolved due to three factors: the industrial crisis, the freedom-oriented social movements of the 1970s, and the technological revolution in microelectronics. The information age has now replaced the industrial era and brought forth new social structures, new ways of organizing, and new forms of power. Information generation, processing and transmission have become the fundamental sources of productivity and power in society because of these new technologies. Castells considers the fundamental social structure of (late-) modern society to be networks driven by information and communication technologies. He argues that:

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[6] Observers generally agree that contemporary society is not identical to that of one hundred years ago, but the labels to describe contemporary society are numerous: late-modern society (Giddens, 1991a), post-industrial society (Bell, 1973), post-modern society (Baudrillard in Kellner, 1989), liquid modernity (Bauman, 2000), risk society (Beck, 1992), individualized society (Bauman, 2001), or network society (Van Dijk, 1991; Castells, 1996) One may also conceive of contemporary (Western) society as an increasingly complex one, with a multitude of processes occurring simultaneously, and for which several labels are applicable.

[7] Castells' work extends beyond the frames of the concept of network society. He has written extensively on subjects such as urbanization, social movements, the economy, globalization and power. When addressing Castells' work in this dissertation I will not be able to discuss all these aspects, but will primarily focus on the concept of the network society.

"Networks constitute the new morphology of our societies, and the
diffusion of networking logic substantially modifies the operation and
outcomes in processes of production, experience, power and culture"
(Castells, 2010 [1996]: 500).

In the network society, physical space and geographical location no longer impose the
same limitations on social organization and behavior. Castells illustrates this process
through the distinction between *the space of places* and *the space of flows* (Castells,
2010 [1996]). Traditionally, social space has been conceptualized as the material
support for the simultaneity of social practice (Castells, 2010 [1996]: xxxi), the
physical place in which we interact and communicate. This traditional physical and
geographical conceptualization of social space is what Castells calls the space of
places, or the space of contiguity (Castells, 2010 [1996]: xxxi). With the development
of electronic information and communication technology, the spatiality of social
interaction has changed and introduced flexibility in the selection of time frames for
social interaction regardless of the physical location(s) of the communicating actors
involved. This new form of spatiality is what Castells has called the space of flows:
the material support for simultaneous social practices communicated at a distance
(Castells, 2010 [1996]: xxxii). In the network society, we need no longer be in the
same physical space to communicate, participate, network, or form or maintain
communities.

While the networking form of social organization has existed in other times and
spaces, Castells argues that the contemporary information technology paradigm
provides the material basis for its pervasive expansion throughout the social structure
(Castells, 2010 [1996]; Castells, 2011). The hierarchical bureaucracies of the
industrial era were limited by the dominance of one-way flows of information. At
present, such one-way mass communication has been replaced by communication in
horizontal networks and many-to-many communication. Because information and
communication technologies provide technology-based means of coordination and
control, human-based coordination- and as a result organizational hierarchy are

reduced. Whereas organization in prior eras reflected the metaphor of a tree with a common trunk of communication linking branches that become progressively smaller as one approaches the top, representing control by top management, contemporary organization is more akin to networks, multi-centered entities in which governance and operations are managed differently at different locations. Networks have predominated as an organizational principle as a result of three traits: their flexible structure, flexible size, and resilience due to the lack of a defined center (Castells, 2011). [8] Structural flexibility has made network-based organizations more adaptable to an increasingly unstable environment, such as a modern corporation in the networked global economy. No component of society, such as social movements or the state can be fully explained by networking logic, as they have features that transcend this logic, but they are all substantially influenced by this logic, as it is a characteristic of the new social structure (Castells, 2010 [1996]).

Although Castells has many types of networks in mind when he proposes his thesis of a network society, his focus is often on networks of some scale and those operating at a higher social level than mere connections between individuals. These networks can be stock exchange markets, global financial networks, national and supra-national councils, criminal- and drug networks, and television systems, among others. He also has a global rather than local focus in developing a general social theory on the condition of contemporary society. As such, he is widely acknowledged for making a central contribution to social theory and how we understand and conceptualize contemporary global society. However, as a theoretical and analytical lens to support this dissertation, a more local or concrete conceptualization of network society is needed. In the next passage, therefore, I turn to Dutch sociologist Jan Van Dijk's conceptualization of the network society.

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[8] One might nevertheless speak of the centrality of a network, namely the degree to which the nodes are centered on or around certain points in a network.

BECOMING A NETWORK SOCIETY

Although Castells' conception of the network society is likely the most well known, the Dutch sociologist Jan Van Dijk was the first to coin the term and developed a theory of the network society in 1991 (Van Dijk, 1991). In his latest edition of the book "The Network Society" (Van Dijk, 2012), instead of conceptualizing networks as the overall substance of society, as he claims Castells has done, Van Dijk adopts a more moderate perspective. He defines the network society in the Western world as:

> "A modern type of society with an infrastructure of social and media networks that characterizes its mode of organization at every level: individuals, group/organizational and societal. Increasingly, these networks link every unit or part of this society (individuals, groups and organizations)." (Van Dijk, 2012: 24).

Van Dijk primarily regards society as consisting of basic units such as individuals, pairs, households, groups and organizations. Face-to-face communication in many ways remains the most important form of communication, but it has also been partly replaced and supplemented by myriad forms of mediated communication, and the basic units of society are increasingly linked by social- and media networks.

Social networks (individuals, groups, organizations and the links between them) are as old as humanity. Throughout history, humans have developed different technical networks, including roads, canals and distribution networks and now telecommunication and computer networks. When these technical networks are filled with symbols and information, they become media networks, with the internet being the most important contemporary example. Together, social networks, technical networks and media networks shape the infrastructure of the network society (Van Dijk, 2012). Closely related to the concept of network society is the information society. Here, Van Dijk emphasizes the high level of information production and exchange and the use of information and communication technologies in modern, developed societies. While the concept of the network society emphasizes the form

and organization of society, the concept of the information society refers to the content and substance of activities and processes in society.

Castells would argue that we already live in a new type of society due to a revolution in the technologies for information processing and communication, namely, the network society (Castells, 2010 [1996]). Van Dijk, however considers social change to be evolutionary rather than revolutionary, and he argues that the network society will not be an altogether different type of society; information and communication technologies will not change the foundation of present-day developed countries, let alone developing ones. A communications revolution has occurred, but not in the sense of its effects on society, rather, it has transpired at the level of media development. New media intensify existing trends and reinforce existing relationships in modern society. Information and communication technologies are trend amplifiers and not the sole source of social change (Van Dijk, 2012).

Rather than regarding the network society as an end product, Van Dijk claims that we are *in a process of becoming* a network- and information society in transition from the previous mass society. Network structures can be observed in the economy, in politics, and in society at large, and networks connect these spheres in a manner akin to a nervous system. The traditional dividing lines of societal levels, the public and private spheres, and the forms of communication in society do not disappear, but they become more complex and exhibit greater differentiation and integration. Therefore, we must analyze society as a structure with levels. At every societal level, particular properties emerge that only apply to that level (Van Dijk, 2012). For example, in relation to this dissertation, this entails that particular technological and social dynamics and characteristics might specifically apply to the organizational level in contrast to the individual level, and to the local organizational level, in contrast to the national level.

In line with a general theory of network functions, Van Dijk regards the network structure as a dual structure. Networks connect and disconnect, unite and fragment, include and exclude and form both organic and virtual communities. These networks

have centers and nodes, and relationships between them. At these points, we find human beings who participate and decide differently and who are central or marginalized, included or excluded (Van Dijk, 2012). To a greater extent than Castells, Van Dijk emphasizes agency in the network society. Referring to Giddens' theory of structuration (Giddens, 1984), he perceives structure, action and consciousness as a dialectical unity. The structure of networks has numerous effects, but not by necessity. Structures appear in interaction, leaving room for agency and consciousness. Network structures are not natural necessities, but they do enable and define. I will return to this structuration perspective in section 2.3.

Van Dijk also acknowledges that the combination of social- and media networks is what enforces the pervasiveness of network structures in contemporary society. Media networks are not mere channels of communication; instead they are becoming social environments in which humans interact in different ways. Therefore, we need to consider this environment of networks. We cannot understand how technologies operate in practice without learning about the social context of their use and of their users, for example, by studying how they are used by voluntary organizations. Van Dijk therefore concludes, in contrast to Castells, that media networks and mediated communication do not replace social networks or face-to-face communication but supplement them. They become interwoven. In this dissertation, my focus is directed to web technologies as channels of communication and how such technology is embedded or interwoven in voluntary organizations rather than regarding the technology as networks and social environments themselves. I nevertheless recognize that the latter aspect is important and that considering social- and media networks in combination is crucial.

NETWORK INDIVIDUALIZATION

It is claimed that communicative and participatory practices and norms in modern (Western) societies are undergoing tremendous change and that individual values are now favored over collective ones (Beck, 1992; Giddens, 1991b; Ingelhart, 1990). This is often referred to as a process of *individualization*, in which individuals now enjoy

greater opportunities and choice in constructing their lives, networks and identities – free from traditional and hierarchical institutions of authority. Van Dijk also identifies individualization as an essential trend in modern society, as a social and cultural process that appeared long before the internet, but that is strongly supported by the recent trends in social and media networks (Van Dijk, 2012: 181). From the dominance of one-way mass communication from a central broadcaster to an audience, we now observe more decentralized communication in which citizens themselves can reach an unlimited audience through the internet. The divide between private and public, interpersonal and mass communication is blurred. Anyone with an internet connection is potentially both a sender and receiver of information in various forms, whether text, image, video or sound (Van Dijk, 2012). Nevertheless, we are not completely autonomous and disconnected individuals in the network society, but just the opposite: we are increasingly connected in networks.

The theory of *network individualization* (Castells, 2001; Wellman, 2000) highlights the role of networks as a social counterpart to the trend toward individualization. [9] Instead of not belonging, or belonging to small and densely knit groups, networked individuals now have partial membership in multiple networks and rely less on permanent memberships in settled groups due to the social network, internet, and mobile revolutions (Rainie and Wellman, 2012). Community can now be found in multiple, fragmented personal networks, connected by individuals and households at their centers. Through web technologies, individuals are freer to navigate socially, politically and geographically while being connected in social networks. The mobility of communication technology has allowed individuals to access others and information almost at will, wherever they go, and physical separation in terms of time and space is less important. This trend may have implications for how we as individuals interact and connect with others, how we are connected to larger

[9] Wellman and Castells use the term "network individualism", but I agree with Van Dijk in this respect that the term "individualism" is unfortunate because of the connotation of egocentrism. I use the term individualization for a more coherent presentation.

collectives such as voluntary organizations, and how we participate in such organizations and in society. The concept of network individualization is explicitly applied in article one, in which I investigate the social context of our lives, the urbanity of the places we live, the traits of our social networks, and our relationship with online forms of political participation. Network individualization can also be regarded as a background for the other articles, especially articles three and four, with respect to the links between organizations and individuals and the challenges currently facing voluntary organizations.

ORGANIZATION OF POLITICAL ACTION IN A NETWORK SOCIETY

Some argue that the trend toward individualization observed in Western societies is accompanied by citizens becoming increasingly disengaged from traditional channels of political participation (Dalton, 1998; Dalton, 2006; Putnam, 2000; Skocpol and Fiorina, 1999; Norris, 1999), as well as citizenship practices being increasingly removed from institutions and norms of duty fulfillment and shifting toward more personalized modes of civic engagement (Bennet, 2008; Dalton, 2008; Ingelhart, 1997; Zukin et al., 2006). Declines have been observed in various group memberships and institutional loyalties (Bennet, 1998; Putnam, 2000). These changes have produced a shift in social and political orientations among younger generations (Ingelhart, 1997), resulting in engagement with politics as an expression of personal hopes, lifestyles and grievances rather than formal memberships in traditional organizations (Bennet and Segerberg, 2013). As I mentioned above, we have witnessed signs of such a trend toward individualization in Norwegian civil society, with more reflexive, non-committal and instrumental forms of volunteering and fewer bonds between organizations and individuals. As stated by Bennet and Segeberg (2013), although the process of individualization takes on different forms in different societies, it includes the propensity to develop flexible political identifications based on personal lifestyles (Giddens, 1991b; Ingelhart, 1997; Bennet, 1998; Bauman, 2000; Beck and Beck-Gernsheim, 2002), which has implications for collective action

(McDonald, 2002; della Porta, 2005) and organizational participation (Putnam, 2000; Bimber et al., 2012).

Bennet and Segerberg (2013) have developed a typology of contemporary contentious collective action, acknowledging the organizational implications of digital technologies. A traditional logic of collective action is associated with the modern social order of hierarchical institutions and membership groups in which a common collective identity in the group is essential. This requires greater education and organizational socialization, which in turn makes greater demands on formal organization and resources, such as money to support offices, generate publicity, and pay professional staff members. Web technologies can and are implemented in such formal and established organizations, and they may reduce certain costs entailed by these processes. Nevertheless, web technology will not fundamentally change the action dynamics of these organizations according to Bennet and Segerberg (2013).

Much contemporary web technology is characterized by decentralized many-to-many communication, in which information is exchanged between two or more units through a shared medium (a social networking site) and not a center (an organization). This has been regarded as a communicational shift from web 1.0 to web 2.0 (Allen, 2012; Madden and Fox, 2006), in which internet users produce, evaluate, and distribute content themselves to a much larger degree. These units, and not an organization or another type of center, establish the premises for communication. This many-to-many element and the combination of different forms of interactivity in web technologies have a particular potential to challenge established organizational structures, and a popular notion is that web technology will make organizations "flat". However, the implementation of web technology can also enhance the bureaucratic characteristics of organizations (Van Dijk, 2012). [10] Web technology could reduce the number of hierarchical levels, while preserving the difference in control and authority

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[10] With reference to Weber's characteristics of an ideal-typical bureaucracy (Weber, 1968[1922])

between levels. A bureaucracy could be centralized through the aid of web technology, but it could also be decentralized, both horizontally and vertically. Web technology permits all four combinations of these processes, but the exact effect of the technology in an organization will depend on the division of power, the type and size of the organization, and the degree of web technology implementation (Van Dijk, 2012). For example, as they age, a resistance to change – or structural inertia – may develop in organizations (Hannan and Freeman, 1984), and in the process of institutionalization, organizations may become less adaptive to their surroundings (Stinchcombe, 1965). Because core traits of an organization, such as communication structures, are often determined at the time of funding and are influenced by the existing organizational and communicational trends, organizations established before the popularization of web technologies and social networking sites may have difficulties adapting to, or resist adapting to, the forms of communication facilitated by the new technology.

However, under the new logic of connective action that is argued to apply to life in late modern-societies, formal collective action organizations are losing their influence on individuals, and group ties are being replaced by large-scale, fluid social networks (Bennet and Segerberg, 2013). These networks can operate through the organizational processes of web technologies, and their logic does not require strong organizational control or the symbolic construction of a united collective identity. Connective action networks are typically far more individualized and technologically organized sets of processes that result in action without necessitating collective identity framing or the levels of organizational resources required to effectively respond to opportunities. Because contemporary individuals have become familiar with social networking practices in their everyday lives, and through having access to web technologies, they are already familiar with this different logic of organization: the logic of connective action. Instead of the classic collective action problem of encouraging the individual to contribute to collective action, the starting point in connective action is the self-motivated (not necessarily self-centered) sharing of already internalized or personalized ideas, plans, images, and resources with networked others through web

technology. These web spheres and their offline extensions are more than mere communication systems; they are flexible organizations in themselves. Bennet and Segerberg (2013) identifies ideal types of contentious action networks on a spectrum from self-organizing networks, aided by web technology but without any central organizational actor, to action networks that are dependent on established organizations to coordinate action, in which web technologies are used to manage participation and coordinate goals. The typology illustrates the different roles and functions web technology can serve in organizing collective action, from being an organizing agent in itself to an integrated tool in an existing organizational context.

The theories and concepts I have discussed in this section concerning the network society, network individualization and contemporary forms of organizing collective action provide a general theoretical context for the empirical studies in this thesis. Next, I will discuss basic sociological perspectives on technology and web technology.

2.3 TECHNOLOGY AND SOCIETY

One central theoretical inspiration for Van Dijk's conceptualization of the network society comes from structuration theory (Giddens, 1976; Giddens, 1979; Giddens, 1984). In this theory, Giddens attempts to determine how social structures both constrain and facilitate human action, while these structures are simultaneously the result of previous human action. Through repeated actions and interactions, patterns of interaction are formed, and over time, these patterns can be institutionalized and shape the structures of social systems. These structures may in turn shape the actions of actors. In light of this perspective, Van Dijk regards social structure and communicative action as mutually shaping one another. Communication technology is seen as both defining and enabling, and technologies and human beings are mutually shaping each other. This is however, not the only conceptualization of the social implications of technology. To position my empirical research and contextualize the

articles in this dissertation, I will further discuss some basic differences between a social constructivist perspective on technology and a more technological-deterministic perspective found within sociological studies of technology.

PERSPECTIVES IN THE SOCIOLOGY OF TECHNOLOGY

While technology is and has been studied through a range of disciplines and perspectives (e.g., history, economy, anthropology), the study of technology and social change is typically thought to lie within the discipline of sociology (Allen, 1959). [11] The first traces of a distinct sociology of technology can be found in William F. Ogburn's 1922 classic "Social Change" (Ogburn, 1922), which highlights the role of technology and innovation in social change (Allen, 1959; Westrum, 1991; MacKenzie and Wajcman, 1999). From the 1920s onward, numerous research projects and studies from various disciplines have contributed to understanding the principles and processes of technology and social change (Allen, 1959). However, a common perspective in much of the early literature on technologies and society was to perceive technologies as external structures, or objective forces that determine the actions of social actors. This is also termed *technological determinism*, in which technology is regarded as the driving force of history and social change. Here, technology is perceived as having independent agency and deterministic consequences. Complex events are perceived to be the inescapable and predictable result of technological innovations (Roe Smith and Marx, 1994). This perspective can be found in many popular narratives on technology, in the sociology of technology in Ogburn (1922), and in subsequent contributions regarding media technologies, most notably from Marshall McLuhan (Winston, 1986). Prior to the 1980s, the dominant scholarship on technology and society can be considered supportive of technological determinism. Some also contend that while Castells explicitly attempts to distance

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[11] The term "technology" can be understood as both technical means or artifacts and the knowledge of creating and using such technical artifacts. Technology has also historically been considered synonymous with scientific knowledge or science, and the field of technology studies is related to the study of scientific knowledge. I will primarily concentrate on the technology side, not the scientific studies/scientific knowledge side.

himself from technological determinism, his explicitly one-sided focus on information and communication technology as a cause of social change is a simplistic and deterministic view of the role of communication technology in society (Wajcman, 2002).

During the 1980s, and especially with the influential book: "The Social Construction of Technological Systems" (Pinch and Bijker, 2009/1987), a *new sociology of technology* emerged. This study of technology was concerned with departing from technological determinism and making distinctions among technical, social, and political aspects of technological development. This perspective held that technology and society are entangled. Most important, technology was to be placed on the agenda of social studies, with attention devoted to how actors draw the borders between the social and technical, rather than assuming that these borders are pre-ordained and static. A *constructivist perspective* was applied that rejected an essentialist and determinist view of technology and instead focused on the *interpretive flexibility of technology*. An interpretive flexibility of technology implies there is flexibility in how individuals think of or interpret artifacts, and that there is flexibility in how artifacts are designed. Because the various groups of individuals involved with a technology can have very different understandings of a particular technology and its technical characteristics, this perspective emphasizes what social groups actually say and do with technology and the entanglement of technology and society. The fact that one type of machine outperforms its alternatives may reflect their histories of adoption and improvement, rather than any intrinsic, unalterable feature of the technologies involved.

Constructivist perspectives have since been implemented to varying degrees in many social studies of technology. In one version of the social constructivist perspective, Mackenzie and Wajcman (1999) use the term *shaping of technology* rather than construction of technology, because *construction*, in their view, is prone to a misconception that there is nothing real and inflexible about what is constructed. They argue that the social constructivist perspective entails an excessive separation of

technology and society, as different spheres influencing each other (as in technological determinism). They claim that technology and society should rather be viewed as mutually constitutive. The technological, instead of being a separate sphere from society, is part of what makes society possible; it is constitutive of society and intertwined with all of our lives, from simple technical tools to large technological systems. A technological system (electric lighting, the electricity network, the internet) is never merely technical; its real-world functioning has technical, economic, organizational, political and cultural aspects. The compelling nature of much technological change is best explained by regarding technology not as existing outside society, as some versions of technological determinism would have it, but inextricably part of society (MacKenzie and Wajcman, 1999).[12] "The correct question to ask, then, is not how technology causes social change, but rather, what role technology and society play in shaping each other" (Westrum, 1991: 9). The relationship between society and technology is complex. It is not purely determinant, insignificant, uniform or arbitrary. Technology is as much a response to social change as it is a shaper of society.

Referring specifically to digital technologies, Sassen (2002) argues that the challenge for current sociology should not be to deny the weight of technology, but rather to develop analytical categories that allow us to capture the complex imbrications of technology and society. According to Sassen (2002), we need to avoid purely technological interpretations of technology in society and recognize the embeddedness and variable outcomes of technologies in different social orders. To develop a sociological understanding of digital technology, we cannot interpret the technology using its technical capabilities alone. This would obfuscate material conditions and practices, its place-boundedness, and the dense social environments within and through which these technologies operate. As Sassen (2002) argues, digital

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[12] Drawing on Bruno Latour and his Actor-Network theory. Latour contributed to the development of the new sociology of technology in the 1980s, and is widely known for his contribution to Science and Technology Studies. However, I will not address the works of Latour in this thesis.

technology should be conceived as being embedded in social structures. This social embeddedness of technology also allows us to transcend the common utopian/dystopian understandings of digital technology, permitting us to simultaneously observe, for example, the reproduction of old patterns of power-relations and domination in the network society simultaneously, the development of new power dynamics. Digital space is embedded in the larger material, societal, cultural, subjective, economic and imaginary structurations of lived experiences and the systems within which we exist and operate (Sassen, 2002). Although existing theories and concepts may help us understand contemporary society, we cannot simply rely on analytical categorizations developed under other spatial and historical conditions that preceded the current digital era. This has resulted in conceptions of the digital as exclusively digital or virtual and hence, separated from the non-digital, material or real. Alternative and more complex understandings of the impact of digital technology on material and place-bound conditions are precluded by such simple categorizations (Sassen, 2002).

Constructivist or social shaping perspectives are also applied in organization studies. Based on Giddens' theory of structuration, Orlikowski (Orlikowski, 1992) has developed a structuration model of technology that allows us to understand and explore the interaction between technology and organizations at various levels. Orlikowski argues that technology is a product of human action in both the production phase and in the concrete use of technology. Humans physically construct technology during the production process, but it is also socially constructed through the use of technology in concrete contexts in the form of the meanings ascribed to the technology or aspects of the technology actually in use. Technology also mediates, facilitates and restricts human and social action. However, interaction with technology is always affected by the characteristics of the institutional context in which it is used (the norms or rules of conduct). In turn, human interaction with technology may also affect institutional characteristics. A central aspect of Orlikowskis' model, and following the constructivist perspective, is the concept of interpretative flexibility in the relationship among human beings, organizations, and

technology. There is flexibility in how we design, interpret and use technology, and the degree of flexibility is a function of the material parts constituting the technology, the institutional context surrounding the development and use of technology, and the power, knowledge and interests of the actors involved.

Although I have noted the different interpretations and concepts within the social constructivist perspective on technology and web technology, this literature shares the general view that technology and society are entangled and that a certain technology does not necessarily mean the same thing or function in the same way in different contexts. This perspective allows us to investigate the institutional, interpretive and technological conditions that shape the ongoing constitution of structures and how this constitution, in turn, reshapes or modifies the institutional, interpretive and technological elements. Article two in this dissertation particularly concerns the specific uses of web technologies in concrete organizational contexts and the different meanings and implications of technologies in the organizations. The other articles may also be interpreted in light of such a perspective that acknowledges the social embeddedness of communication technologies, in other words, perceiving the relationship between society and technology as complex and mutually constitutive. Moreover, it should also be possible to acknowledge that web technologies can have a social impact and actual consequences for individuals, organizations, and society. The four empirical articles in this dissertation are attempts to uncover such potential implications for individuals and organizations in Norwegian civil society. The next section concerns the existing empirical research on web technologies in society.

3. EXISTING RESEARCH

The comprehensive theories of Castells, Van Dijk, and others on the social implications of web technology pose numerous questions that have been, and continue to be investigated empirically by social researchers. Although many observers agree that the internet changes society, what these changes are is less obvious. Prior to the year 2000, much of the research on the social implications of the internet can be divided between dystopian visions and utopian hopes of how web technology would change society (Van Dijk, 2012; DiMaggio et al., 2001). Researchers have studied the possible effects of web technologies on a range of issues, such as community, social capital, inequality, political participation, deliberation, organization, the production of goods and services, culture, and entertainment. These issues have been studied at various levels, including the individual, organizational and societal levels, locally, nationally and globally. In the following, I will discuss some of the research on the social implications of web technologies in areas related to the focus of this thesis. [13]

3.1 INTERNATIONAL LITERATURE

Inspired by DiMaggio et.al (2001), we can broadly identify four major topics in existing sociological research on new communication technology: *inequality and digital divides; politics and the public sphere*; *forms of organization*; and *social integration*. A basic initial research topic has been inequality and digital divides with respect to web technology. Inequality with respect to communication technology can take several forms: access to technology, levels and forms of use, motivation and other resources associated with the use of technologies, such as money, time, knowledge, networks and culture. On a global level, there are apparent digital divides

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[13] Thus, this is not an exhaustive summary of relevant research.

between countries and regions in terms of who has access to the internet and the quality of that access. These divides are to a large extent the result of the developmental status of specific countries and regions of the world. In Western societies such as Norway, with high levels of internet access and use, perhaps the more pressing inequalities concern the levels and forms of and output from internet use, such as the type of information and knowledge to which we are exposed online.

Regarding politics and the public sphere, relevant questions concern how digital technology affects political knowledge, participation and the public sphere. Predictions of a fragmented public sphere due to web technology have been made in the form of terms such as "information cocoons", "echo chambers" or "cyber balkanization". They all concern a process of personalizing technology in which individual desires and interests dictate the information, views and perspectives to which we are exposed. According to Sunstein (2007), we are increasingly exposed to information from "the Daily Me". We can filter out the information we desire and consume the information we want. Regarding political knowledge, the early research literature revealed that after controlling for education and political interest, there is little evidence that internet use has an effect on levels of political knowledge (DiMaggio et al., 2001). However, several experimental studies, at least in the US, corroborate predictions of selective exposure to political information online (Iyengar, 2011). Regarding political participation, rather than activating the politically inactive and uninterested, studies have found that the internet activates those who are already politically interested to a greater extent (Bimber, 1999; Bonfadelli, 2002; DiMaggio et al., 2004; Hendriks Vettehen et al., 2004; Krueger, 2002; Norris, 2001; Polat, 2005; Weber et al., 2003). Individuals with higher levels of education tend use the internet instrumentally, while those with less education primarily use it for entertainment (Shah et al., 2002; Prior, 2007). The politically interested use the internet to consume political information and engage in active participation, while the majority is disengaged. This has been argued to reinforce existing social and new digital divides, where the educated and knowledgeable have an advantage in an environment filled with information and new technologies, using it for instrumental purposes. However,

some studies have shown that the internet mobilizes inactive individuals, especially the young (Barber, 2001; Delli Carpini, 2000; Krueger, 2002; Ward et al., 2003; Weber et al., 2003). There is little doubt, however, that the internet has facilitated new forms of political action and participation, as I will discuss in the first article. Here, I will investigate potential social inequalities or digital divides in online forms of political participation.

Web technologies can also change the way individuals organize themselves, how organizations are formed and structured, and how individuals communicate within organizations. Above, I elaborated on this theme concerning the organization of political action in a network society, in which a new logic of connective action may apply for organizing actions. A concrete example in this respect is the organization MoveOn.org, which was born and primarily exists in cyberspace and combines web technologies with concrete forms of civic engagement (Carty, 2012). Web technology can make organizing less dependent on time and space, more flexible and more cost-effective. Nevertheless, important questions remain regarding whether web technology will change existing organizations and how. For instance, in the market sphere, several changes in organizational forms toward more flexible and network-based organizations occurred before the internet became popular, according to DiMaggio et.al (2001). Additionally, the inherent potential of web technologies is not identical to the actual implications for organizations, as the constructivist or social shaping perspective on technology demonstrates (Orlikowski, 1992; Pinch and Bijker, 2009/1987; MacKenzie and Wajcman, 1999). The implications technologies have for organizations are influenced by the active choices, interests, structures, routines, norms, and culture in organizations, as I will investigate further in the second research article in this dissertation. Other features of organizations, such as age, structural inertia and the degree of institutionalization, may also influence how organizations react to changes in communication and technology. As Bennet and Segerberg (2013), among others, argue, new and less institutionalized groups may therefore be prone to use web technologies more as an organizing principle, with features of decentralized, many-to-many communication, while older and more institutionalized organizations

may not. I will investigate the institutionalization and establishment of organizations and the relation to web technologies from different perspectives in articles two, three and four. According to DiMaggio et al. (2001), existing research is lacking in larger studies of how civic organizations use the internet, and they call for more systematic studies to understand the institutional conditions that encourage or discourage the successful exploitation of web technology for collective ends. This is the objective of the last two research articles in this thesis.

A further basic question concerns how web technology affects social integration and community and face-to-face interaction. How will an increased use of web technologies affect face-to-face interaction, social relations, participation and community? Will it lead to isolation and anomie, or will we witness new forms of community and participation in society? For example, what effect will the use of new technologies and forms of communication have on individuals' participation in networks, groups, and organizations? DiMaggio et.al (2001) argue that the internet in general has no intrinsic effect on levels of social interaction or civic participation among individuals. Similarly, Shklovski, Kiesler and Kraut (Shklovski et al., 2006) argue that, overall, the internet has had no broad effect on social interaction. Nevertheless, internet use tends to intensify existing inclinations toward sociability and community involvement. Here, the internet largely acts as a supplement, an additional channel for the expression of social involvement. However, for particular groups and individuals, the internet may yet have negative implications for social participation and integration. The empirical research in this thesis will not directly address the implications web technologies have for general social integration, social relations and community, but article three is concerned with the implications web technologies have for face-to-face activities and participation in voluntary organizations.

3.2 NORWEGIAN RESEARCH

A recent study of Norwegians' use of social networking sites for social and political participation (Enjolras et al., 2013) found that these sites constitute a new means of mobilizing agency for participation in offline demonstrations, thereby supplementing established and traditional mobilizing structures. In this respect, web technologies may provide infrastructures for the expression of citizen action and participation. In their analyses, Enjolras et al. (2013) found that participation in Facebook groups was significantly related to mobilization and participation in demonstrations, particularly among persons with lower socioeconomic status. For younger persons, Facebook was regarded as the most important channel for information on offline demonstrations, and participation in protest groups on Facebook is also extensive among this group. Enjolras et al. (2013) argue that social networking sites such as Facebook should be regarded as supplements to both the organizational establishment and mainstream media as information structures that facilitate mobilization. One aspect that Enjolras et al. (2013) did not investigate is how contextual factors such as urbanity and social networks are related to these new participatory forms. This forms the context for the first article in this thesis, in which I investigate the diffusion of political activity online and the relationship with urban context and the characteristics of individuals' social networks.

Regarding web technologies and the organized civil society in Norway, one of the first studies in this area is Tranvik and Selle's (2008) case study of the implementation of digital technology in four national voluntary organizations. After voluntary organizations experienced certain general challenges – centralization, professionalization, bureaucratization, reductions in membership and local chapters, and reduced financial autonomy – e-management and e-democracy reforms were initiated to vertically and horizontally integrate the organizations. The hope was that digital technology would contribute to the development of new organizational solutions and administrative systems to improve the political and administrative management of the professionalized segments of the organizations. These reforms

were also intended to create new internal channels of communication and interaction, thereby facilitating participation by members and elected representatives at various organizational levels. Local organizations were supposed to gain increased access to the central levels of the organizations, increase their influence and coordinate efforts to combat common challenges. Through the use of technology, the organizations sought to strengthen participation and the local volunteer culture through increased service from the central level. The researchers found little enthusiasm for the new technologies and the process of modernization in the organizations. In this regard, neither technological-deterministic perspectives on the pressing necessity of technological investments nor a technological utopianism of impeccable technological possibilities affected the reform processes in these organizations. More pressing were internal challenges and resistance and external rules and regulations. Efforts to facilitate online participation ultimately had little effect on the organizations' volunteer and member recruitment or active participation and discussion online (Tranvik and Selle, 2008).

In a more recent survey, most national level organizations in Norway had homepages and approximately half had used social networking sites such as Facebook, with a quarter using the internet to promote the organizations' activities. Here, the internet may have replaced more traditional ways of creating attention to affect public opinion and strengthen the organizations (Gulbrandsen and Sivesind, 2013). A case study of three national voluntary organizations in Norway found that websites and social networking sites were an important component of external communication (Steen-Johnsen et al., 2012). It appears that the external environment had imparted expectations regarding the use of social networking sites (Steen-Johnsen et al., 2012). The new communication technology created a new communication situation that presented new opportunities for the organizations but also posed new challenges regarding how to best exploit the new technologies. The new communication technology meant that the boundaries between the organizations and their surroundings became increasingly blurred, with less control and a more open public discussion of what the organizations were and should be. The concept of membership,

namely, who is outside or inside the organization, was also blurred. New questions of centralization and decentralization, professionalization and competence also resulted from the new communication landscape. Although the organizations experienced a change in their surroundings with respect to communication, the organizations also exhibited a fundamental stability in addressing both internal representative and democratic processes, and external political influence.

Thus far, extant research on web technologies and voluntary organizations in Norway has focused on national organizations. Therefore, knowledge of the implications of web technologies at the local level of voluntary organizations is necessary. Additionally, it is essential to include organizations at the local level because they are an essential component of Norwegian civil society, and the main link between individuals and organized civil society. Therefore, the local level of organized civil society in Norway is a central focus in articles two, three and four. The second article reports on a case study with an in-depth perspective on the implications and meanings of web technologies within organizations. Articles three and four are based on statistical data on the population of local voluntary organizations in Hordaland County in Norway.

As a conclusion to this section on existing research, we can see that the social effects of the internet are complex, but perhaps not as substantial as the early dystopians and utopians argued. The implications of web technologies will depend on the social organization involved in the actual use of the technologies. In this respect, I hold that combining various types of data and methods can provide a more comprehensive understanding of this field of research. Accordingly, this is an empirically driven research project, which contributes much needed knowledge concerning the implications of web technologies at the local organizational level and the individual level of Norwegian civil society.

4. METHODOLOGY

4.1 RESEARCH DESIGN

As social researchers, to make sense of the complexity of the empirical world, we structure our descriptions of the world with the aid of theoretical ideas. I began my empirical studies by employing existing knowledge, theories and research to develop hypotheses. As such, much of my research has followed a deductive approach. The theory of the network society can be considered a theoretical backdrop for the project, investigated by studying voluntary organizations' use of web technologies and individuals' online political participation. Voluntary organizations and political participation are, in turn, considered important elements of civil society, the theoretical concept used to frame the empirical research field. More specific theoretical concepts such as network individualization and network organization (related to network society theory) and theories of organizations, such as structural inertia and organizational institutionalization, have in conjunction with past empirical research, led to the formulation of my expectations and research hypotheses. These hypotheses were then subjected to empirical scrutiny through the analysis of both quantitative and qualitative data.

As a starting point, the project was placed within a quantitative research framework. This framework was designed to investigate the use of web technologies in voluntary organizations using survey and web-site data obtained from a population of voluntary organizations in the county of Hordaland. [14] [15] The aim was to provide a general perspective on the issue. When I began the project, I also sought a more in-depth

[14] Before the PhD project I collected data for the 2009 round of the Hordaland Survey, and I also collected the website data used in the fourth article.

[15] Hordaland is the third largest county in Norway with a population of approximately 500.000. It consists of 33 municipalities in the western part of the country. Bergen is the largest municipality in Hordaland and the second largest city in Norway.

perspective to investigate the theme at hand. My belief was that including qualitative data from a case study of three organizations would contribute to a deeper understanding of the implications web technologies have for organizations. It would contribute an insider's view on various meanings and perspectives concerning web technologies in organizations and provide additional information on the broader patterns of relationships between different organizational variables that might be uncovered during the quantitative analyses. Finally, I also sought to investigate the relationship between web technologies and political participation at the individual level. Due to my affiliation with another project, I gained access to survey data on Norwegian internet users containing detailed information on respondents' use of web technologies and political participation. [16] I chose to use these data as an empirical basis for this final article.

This PhD-project employs several sources and types of data to investigate the general topic and is driven by a diverse rather than uniform research strategy. This suggests the use of a *mixed methods* research design which has gained prominence over time, particularly since the early 2000s (Bryman, 2012; Tashakkori and Teddlie, 2003). Although one can separately combine different quantitative or qualitative methods, a common understanding of mixed methods research is that quantitative and qualitative methods are integrated within a given project. [17] This may involve combinations of methods within a single study or within multiple studies in a single research project (Creswell and Plano Clark, 2007). I use quantitative data in articles one, three and four, while the second article is based on qualitative data. I do not combine quantitative and qualitative methods within each article. As such, this project can be regarded as a multi-study research project, that uses different sources and types of

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[16] A Verdikt-project funded by the Norwegian Research Council and operated by the Institute for Social Research in Oslo.

[17] Although it is common to distinguish between quantitative and qualitative methods, with a focus on the type of data and how many cases are studied, this is not the only way to classify research methods. One could also classify them by the methods used to gather or analyze the data. There is no fundamental way to categorize methods according to Abbot (2004).

data during different phases of the project, and reports on them as separate studies in separate journal articles.

CAN METHODS BE MIXED?

A common distinction in research strategies is that between deductive and inductive research strategies. [18] [19] Under the deductive approach, the researcher begins with the existing knowledge, theories and existing research on a subject and deduces hypotheses that will be subjected to empirical scrutiny using the available data. The empirical analyses will either confirm or reject the hypotheses. In an inductive research strategy, the chronology of the research project is reversed. Here, one may begin with empirical observations. Patterns and relationships may be observed in the empirical data and theory and generalizations may be developed as an outcome. The deductive strategy is often associated with a quantitative research approach, while the inductive strategy is often associated with a qualitative research approach. However, these are not absolute categories; deductive approaches often involve inductive elements, and inductive strategies may have deductive elements. In addition, quantitative research often diverges from the straightforward sequence sketched out above; qualitative research does not always generate theory, and theory is often used, at least as background, in many qualitative investigations (Bryman, 2012).

The distinctions between qualitative and quantitative methods, as well as between deduction and induction have often been linked to differences in assumptions concerning how obtaining knowledge of the social is possible. Quantitative research and deduction is often associated with the paradigms of *objectivism* and *positivism*. Objectivism is an ontological position in which social phenomena and their meanings are perceived to exist independent of social actors (Bryman, 2012). Although it is an oft debated concept, positivism may be regarded as a scientific perspective that aligns

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[18] Blaikie (2000) also identifies two other research strategies; the Abductive and the Retroductive strategy.

[19] The distinctions between different research methods and their ontological and epistemological foundations is a long standing debate, which I will not be able to fully cover here.

the social sciences with the natural sciences and has the objective of *explaining* social phenomena (Blaikie, 2000). Claims to knowledge are based on cause-and-effect reasoning, reducing the research problem to variables and their interrelations, the detailed observation and measurement of variables, and the testing of hypotheses and theories (Creswell and Plano Clark, 2007). Qualitative research and induction, however, is often associated with *constructivism* and *interpretivism*. The ontology of constructivism holds the actors realize social phenomena, and its epistemological focus is on understanding of the subjective meaning of social action (Bryman, 2012). Social phenomena are to be understood from the "bottom-up", as they are formed through the subjects' views, history and social interaction (Creswell and Plano Clark, 2007). Here, the social sciences are considered distinct from the natural sciences and the emphasis is on understanding and interpreting social actors' meanings and their sense-making of the social world of which they are a part (Blaikie, 2000).

The two paradigms and related methods have long been considered incompatible due to their different ontological and epistemological assumptions (Denzin and Lincoln, 1994). Others may argue that the possible relationships between epistemological perspectives and research strategies need not be a primary concern. As Bryman notes:

> (…) while such interconnections between epistemological issues and research practice exist, it is important not to overstate them, since they represent tendencies rather than definitive points of correspondence. Thus, particular epistemological principles and research practices do not necessarily go hand in hand in a neat unambiguous manner. (Bryman, 2012: 32)

The growing popularity of mixed methods research reflects "a growing preparedness to think of research methods as techniques of data collection or analysis that are not as encumbered by epistemological and ontological baggage as is sometimes supposed" (Bryman, 2012: 649). Mixed methods research is regarded as an alternative to the choice between a qualitative and a quantitative approach. Instead, the strengths of each research strategy with respect to data collection and analysis techniques and the

potential for combining the strategies is emphasized. Such a position recognizes differences in epistemological and ontological assumptions, but they are not considered fixed or inescapable. In contrast to positivism and interpretivism, *pragmatism* (Howe, 1988; Tashakkori and Teddlie, 2003) focuses on the consequences of research and the importance of the research question rather than the methods.[20] Pragmatism is pluralistic and oriented toward practice and "what works" (Bryman, 2012). Pragmatism is also argued to be a primary basis for mixed methods research and a single unified paradigm (Tashakkori and Teddlie, 2003; Creswell and Plano Clark, 2007). Others employing mixed methods research may acknowledge that different paradigms give rise to contradictory epistemological and ontological ideas and contested arguments that cannot be reconciled, but they nevertheless regard the two methods as complementing one another and argue that the two may be combined (Greene and Caracelli, 1997; Greene and Caracelli, 2003). Some also propose the application of specific research paradigms associated with the particular combination of methods and data considered in a given research project (Creswell and Plano Clark, 2007).

Although the debate concerning qualitative and quantitative methods, epistemological assumptions and specific perspectives on mixed methods persists, mixed methods research, also termed the "third methodological movement", is now a viable strategy (Tashakkori and Teddlie, 2003). In this thesis, I recognize that different epistemological and ontological assumptions may apply in quantitative and qualitative research strategies, but I do not consider them to be in conflict or barriers to combining different methodological tools, both quantitative and qualitative, in a given research project. As such, this thesis adopts pragmatism as a research approach, with a focus on the use of different types of data and methods to investigate the topic of interest.

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[20] One may also differentiate pragmatism from advocacy and participatory research (Creswell and Plano Clark, 2007), also called the transformative-emancipatory paradigm (Tashakkori and Teddlie, 1998). This may also be a suitable, unified paradigm to justify the use of mixed methods research (Tashakkori and Teddlie, 1998).

In my view, the general topic is also well suited to this type of approach. Investigating the social implications of web technologies requires going beyond the characteristics and potentialities of the particular technologies. It is crucial to observe how they are distributed, used and understood in social contexts, and this requires more than a single type of method or approach. Because web technologies can have diverse implications at different societal levels (individual, organizational and system) and in different spheres of society (private, public, civic, state, market), it is necessary to apply different approaches and ways of gathering information and producing knowledge. I consider quantitative studies important for establishing basic knowledge on general patterns, but this type of knowledge needs to be complemented by in-depth perspectives, subjective meanings and context, to provide richness and depth. To explore general patterns of web technology use as well as be able to discover organizations' internal perspectives on the implications of web technologies, I argue that a mixed methods approach is highly appropriate. However, it is important to realize that mixed methods research is by no means superior to uniform or mono-strategy research. The methods must be equally appropriate for investigating the research questions and research area and be competently designed and conducted (Bryman, 2012). My particular combination of data and methods is but one of many possible approaches.

4.2 DATA SOURCES

THE HORDALAND SURVEY AND WEBSITE DATA

The main data source used in this project, the Hordaland survey, is a repeated survey of the population of voluntary organizations in the county of Hordaland, conducted by the Rokkan Centre. The first wave was conducted in 1980, the second in 1998-2000, and the third in 2009. [21] For the 2009 survey, the response rate for 16 of the 17

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[21] Data from the first wave are not used in this thesis.

municipalities included was 52 percent. The response rate for the largest city and municipality, Bergen, was somewhat lower, at 39 percent. This represented a decline from the response rate in the 1998-2000 wave of 60 percent in the rural municipalities and 45 percent in Bergen. Approximately 2900 organizations responded to the survey in 1998-2000 and 2500 in 2009. The organizations represent a wide range of fields, including sports, politics, language, missionary activities, alcohol abstention, music and the arts, children's organizations, social and humanitarian work, neighborhood activities, and culture and leisure. This survey provides detailed information on the local organizational society over time, the forms of organizing and activity, and the concerns, ideas and goals of the organizations. The Hordaland data are highly valuable for the detailed knowledge they provide on the local organizational society. As far as I know, in an international context, there are few datasets that provide such detailed information on a local organizational population over time.

Following the completion of the 2009 survey, the responses of all the organizations reporting having at least one website of some type (N=1104) were used to construct a registry of this information, including the web addresses. All the web representations were further investigated by registering the type of web site and several characteristics of the web content. The web addresses registered by the organizations and various types of web searches where used to find and access the organizations' web representations. The coding instrument for the collection of website data was developed following the existing literature and studies of the content of organizations' websites. Thirty-three items in five main categories of website content were registered. A total of 1413 websites were included in the dataset. The website data were then merged with the information on the organizations obtained from the Hordaland survey.

The results obtained from analyzing the Hordaland data primarily reflect local organizational life in Hordaland. Nevertheless, because the Hordaland organizations do not substantially differ from their counterparts elsewhere in Norway, characteristics of the organizational society in Hordaland could also be indicative of

the traits of Norwegian organizational society as a whole. Following a general trend in survey research, it was more difficult to obtain responses from the organizations in 2009 than in previous years. The declining response rate is problematic for the representativeness of the results, particularly for Bergen. For the 16 other municipalities, additional reminders and requests for a response were made by phone and e-mail to obtain a satisfactory response rate (Christensen et al., 2011), 2011). When searching for and investigating web representations it is possible that websites and social networking site profiles were overlooked and that spelling errors were made. Organizations could also have begun using social networking sites immediately following the investigation of their web presence. Because of the rapid pace of technological change, the analysis of organizations' websites can only claim to provide a contemporary picture of voluntary organizations' online representation at the time when the data were collected. Although we observed very little change in the adoption rate of social networking sites during the one-year period that was required to gather the website data in 2011, the situation may have changed since then.

THE CASE STUDY

More concrete, context-dependent knowledge was included in this PhD project by conducting in-depth or case studies of three voluntary organizations. Although every social scientific study might be regarded as a case study (Ragin, 1992), there is a large body of social science literature arguing for the distinctiveness of this approach. According to Yin (2014) "a case study investigates a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident, and in which multiple sources of evidence are used" (Yin, 2014: 2). A case study is also appropriate when the research question seeks to explain contemporary circumstances and how or why some social phenomenon operates (Yin, 2014: 4). The phenomenon investigated in article three was how web technologies and organizational norms and culture are mutually socially shaped, specifically in the real-life context of three voluntary organizations. The phenomenon as such is closely associated with the context. I attempted to access this

real-life context through face-to-face meetings and semi-structured interviews with representatives of the organizations and by observing their online representations and activities. In addition to reading the organizations' online material and documents, several different data sources were used. Although the deductive approach is often associated with quantitative methods, I formed certain expectations based on past theory and research and assessed them in light of the data I gathered in this article.

Because existing studies have identified the environmental movement as being specifically prone to using new web technology in its activities (Castells, 1997; Castells, 2011), I selected three organizations within the field of climate and environmental protection located in the city of Bergen. In addition to these two common traits, I wished to obtain variations in organizational traits such as size, age, organizational form and types of activity. This can also be referred to as the strategic selection of cases (Ragin, 1992) to obtain rich and varied information on the phenomenon at hand. The study can also be labeled a comparative or multi-case study in which different or contrasting cases were studied using similar methods and then compared with one another (Bryman, 2012; Yin, 2014). I contacted the organizations and their leaders by e-mail and explained my purpose. I attached a letter explaining the background and purpose of my project and included a declaration of consent to participate in the study for the interviewees to sign. After the leaders and communication staff signed the consent agreement, I made appointments to conduct the interviews. Semi-structured interviews were then conducted with the leaders and communication staff of the three organizations, with a focus on their professional roles in the organizations. [22] The interviews lasted between 90 and 120 minutes. As is common in semi-structured interviews, I had prepared an interview-guide: a list of

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[22] Some would argue that interviewing these persons could be considered an expert- or elite interview in which the power relations between the interviewer and interviewee are skewed and hence, require specific skills from the interviewer and have vital implications for the outcome of the interviews. However, in my experience, most interviewees were easy to contact and speak with, and provided me with relevant information on the topic of interest.

topics, themes and questions to be covered during the interview. [23] A semi-structured interview is flexible, meaning that respondents may reply how they wish, and the order of the questions is not particularly important but depends on how the interview/conversation proceeds. This interview format is also open to additional questions and thematic detours if the researcher becomes aware of interesting or relevant subjects or issues presented by the interviewee during the interview (Bryman, 2012). Although my focus was interviewees' professional roles in the organization, the semi-structured interview format allowed their individual backgrounds and traits and personal opinions to also influence the interviews. Because half the interviewees were leaders of organizations and generally publicly known persons, and hence, the detailed descriptions of the organizations would make it difficult to anonymize them, they all signed agreements acknowledging that they might be recognized in the final published version of the study.

The aim of this case study was not to provide general conclusions that would be valid for all types of organizations and their relationships with web technologies. Instead, I sought to explore the implications of web technologies in greater detail and multiple organizational contexts, compare them and contribute to an understanding of the implications web technologies have for voluntary organizations. The web technologies-in-practice that I identified should not be regarded as exhaustively or exclusively characterizing any one organization's relationship with web technologies. Additionally, the web technologies-in-practice may have evolved or changed, or new ones may have appeared, since the data were gathered. However, over time, individuals tend to employ similar technologies-in-practice, and the enacted technology structures could become routine, taken for granted, and even institutionalized under certain circumstances. Such temporary stabilization of technologies-in-practice allows us to seek moderatum- (Payne and Williams, 2005) or bounded generalizations concerning the types of technologies-in-practice that are

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[23] The letter with the project information, consent form, and interview-guide is included in the appendix.

likely to be enacted by particular types of users of specific technologies in various contexts and at various times (Orlikowski, 2000).

INDIVIDUAL LEVEL DATA – USERS OF SOCIAL NETWORKING SITES

The data used in article one were obtained from an online survey conducted in 2012 of Norwegian users of a social networking site who were over 16 years, with a particular focus on citizen participation and the use web technologies. The survey was sponsored by the Institute for Social Research in Oslo and conducted by TNS Gallup. The sample was drawn from TNS Gallup's web panel, comprising 62000 individuals who are representative of the Norwegian population of internet users. The sample consists of 4002 active social networking site users, defined as those who use Facebook or Twitter at least once per week. The analyses concern the use of Facebook for political participation. Comparing the sample of active users of social networking sites to the Norwegian population, respondents with a high level of education and women were overrepresented, while respondents with low educational levels were underrepresented. [24]

4.3 METHODS OF ANALYSIS

Information on the distinct methods of analysis and their theoretical and methodological justifications is included in each article, but I will provide a brief summary of the methods and approaches used below.

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[24] Lists of variables, and coding of variables, in article one, three and four are included in appendices in the individual articles.

Table 1: Data and methods used in each journal article

Article	Data	Method
Article 1	Survey data from internet users	Multilevel regression analysis
Article 2	Interview data and information from organizational materials, documents, online representations and activities	Thematic analysis Extracting case "histories" Identifying recurrent themes, subthemes and key elements
Article 3	Data from the 1998 and 2009 Hirdaland surveys	Bivariate analysis Heckman two-step regression analysis
Article 4	Data from the 2009 Hordaland survey merged with website data	Bivariate analysis Multilevel (HLM, Bernoulli distribution) regression analysis

Articles one, three and four employ analyses of survey or large-N data. Statistical variation between variables in the datasets is investigated using different forms of regression analysis to respond to the research questions. The first article is based on a survey of Norwegian social networking site users, in which I investigate differences in political participation online related to characteristics of the respondents' places of residence and social networks. Based on theories on the diffusion of social forms, I argue that it is relevant to include population size and density of the place of residence when investigating new forms of political participation. These considerations, arguments concerning the relationship between social network characteristics and online political participation, and controls for other personal characteristics, form the context for the multilevel analyses. In these analyses, I use data on individuals (individual characteristics and those of their social networks) and the municipalities in which they reside (population density and size). Statistically, when analyzing data at different levels (individual and municipality), it is important to distinguish between the properties of collectives and those of their members

(Lazarsfeld and Mentzel, 1969). A failure to distinguish between different social levels when conducting the analyses might lead to the conclusion that inferences made at the collective level should also hold for individuals (the ecological fallacy) or that inferences made at the individual level should also hold for collectives (the atomistic fallacy) (Luke, 2004). Because individual political participation might vary within and across municipalities, and political participation among persons from the same municipality might be correlated, I employ a multilevel approach. This multilevel analysis will be able to decompose the variation within and across municipalities, which is appropriate for a multilevel data structure, even if the results ultimately exhibit little or no variance between levels (Nezlek, 2008).

The second article, investigating how web technologies and organizational norms and culture are mutually socially shaped, reports on an in-depth and context-rich study conducted on three voluntary organizations. Here, I exploit information from face-to-face interviews with organizational leaders and communication workers, organizational documents and online materials. The interviews were audio recorded and then transcribed. Furthermore, the interview transcripts were analyzed through thorough multiple readings and the construction of an index of central themes and subthemes, repetitions, key words and remarks from each interviewee. This index was represented in a matrix. I also sought patterns of relation among the elements in the matrix. From the data, I developed several categories of web technologies-in-practice and arranged them into appropriate categories of technology adoption patterns and types of interaction. This analysis can be regarded as an example of the rather loose approach of thematic analysis (Bryman, 2012). This approach does not entail any clearly specified series of procedures, and ultimately, the identification of themes, subthemes, key words and remarks will be associated with the researchers' observation of recurring elements in the data (Bryman, 2012). I also wrote a brief "story" of each organization based on the gathered data, using central elements that became apparent during the analysis of the data.

In the third article, I am interested in the implications of web technologies for organizations over time and how they relate to organizational change, face-to-face activities and the sustainability and vitality of organizations. Using statistical data on the organizations in Hordaland from two survey waves, 1998 and 2009, I investigate the relationship between the use of web technologies and organizational change. First, I investigate the nonrandom subgroup of organizations using the internet in 2009. A Heckman two-step regression is used to control for the selection of these organizations into internet use (Heckman, 1976). This analysis first considers which factors are related to whether the organizations are online. Controlling for the organizations' selection into online activity, the analysis then considers what factors are related to the organizations considering an internet presence beneficial. In the second analytical model, I examine the potential long-term implications of web technologies, using data from 1998 and 2009. This Heckman two-step regression model controls for the nonrandom selection of surviving organizations, followed by an examination of the factors related to changes in the dependent variable. The first step in the regression considers the relationships between internet usage and organizational survival, including control variables. The second step examines the likelihood of observing indicators of organizational growth. [25]

In the fourth article, I (and the coauthors) am looking for patterns of relationship between organizational characteristics and the use of websites and social networking sites. Based on existing studies and theory, I formulate several hypotheses regarding potential barriers to the adoption of social networking sites with respect to the characteristics of organizations and the municipalities in which they reside. This study considers data from the Hordaland survey from 2009, merged with data on the content of the organizations' web representations. It also includes characteristics of the municipalities in which the organizations reside; therefore, we use a logistic,

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[25] Wrong N's are reported in this second model of analysis (table three). Organizations that have survived but not responded to the survey in 2009 were not included in analysis. When included in analysis of organizational survival the patterns of relationships between the dependent and independent variables are similar.

multilevel regression analysis, allowing us to simultaneously model organization and municipal level characteristics, as discussed with reference to article one.

5. SUMMARY OF ARTICLES

Article 1: Diffusion of online political participation. Urban context and social networks.

With the theories of diffusion of new social forms and network individualization as exit points, in the first article, I am concerned with how our social context, in terms of urbanity and social networks, is related to political participation on the social network site Facebook. In an urban-rural diffusion model of social forms, we would expect that new forms of political participation would first appear in urban centers and subsequently diffuse to more rural areas. Following this theory, online political participation should be more common in urban than rural areas. However, in the theory of network individualization, information and communication technology is said to make the local context, neighborhood and physical place less relevant for our social and civic life. Here, our social networks should matter more for political participation than our geographical context. Using multilevel analysis on survey data from active social media users in Norway, I investigate how new forms of political participation through Facebook differ by level of urbanity in municipalities and how the traits of social networks are related to this type of online political participation. Four forms of political activity through Facebook are investigated: linking to social and political news, discussion of such new links, membership in protest groups and activity in interest groups on Facebook.

From the analyses I found that just above half to approximately one third of the respondents participate in the different forms of political Facebook activity. Further, the results point to population size and density as not being significantly related to online political participation. There does not seem to exist much of an urban-rural digital divide when it comes to online political participation. Traits of social networks on the other hand, especially diversity in contact types, seem to be highly correlated with the four forms of online political participation. Controlled for relevant background variables, the analyses show that diversity in types of Facebook contacts

and in offline discussion partners is positively associated with political activities on Facebook.

The results can be seen in light of theory and former research pointing to heterogeneous networks facilitating exposure to different ideas and opinions and fostering political learning, which again is strongly connected to increasing political participation. I also interpret the findings in light of the theory of the network society and network individualization, in which the internet and mobile technology have made individuals freer to navigate socially, politically and geographically while still being connected in social networks. As we increasingly navigate in our individual social networks and in networked publics, the physical surroundings – the city or the rural town – may not be as determinant for our ability to socially and politically participate. Rather, political participation could be more dependent upon other factors, including traits of a person's social network.

Article 2: Web technologies in practice. The integration of web technologies by environmental organizations.

In the second article, using a case study approach, I investigate three Norwegian climate- and environment protection groups to explore the meanings and implications of web communication for interest groups. Here, I am investigating the social construction of the web as a medium, including how the socio-cultural and political positions of groups affect interpretations of technology. Data were gathered through semi-structured interviews, organizational documents and from the organizations' web representations. The data were analyzed from a structuration perspective and in light of institutional and network society theory. The structuration model of technology allows us to understand the interaction between technology and organizations, and we can investigate different aspects of groups' situated use of web technology. Based on institutional theory, I would expect that in newly founded and less institutionalized organizations, norms, practices and structures are less stable and that the organization or group may be more susceptible to changes or to being shaped by new technology.

The study indicates that the technological preconditions for Norwegian environmental organizations are somewhat similar, with easy access to web technologies and web platforms. The three organizations had all adopted websites and SNSs. Nonetheless, the enactment of practices concerning web technologies diverged from centralized one-to-many communication to a more decentralized many-to-many communication. With diverging organizational structures, norms, and culture, different interpretations and meanings tied to the same technologies develop. In turn, the practices concerning web technology can have further implications for the organizations. The study illustrates how technology is situated and used in concrete social contexts, being shaped by and in turn shaping social and organizational structures. Opposing visions of a single predetermined effect of web technology I argue for a trend-amplifying or reinforcing effect of web technology on existing organizations' structures, norms and culture. The degree of institutionalization and established organizational structures, and existing perspectives on web technology within organizations, will affect the impact and further implications of web technologies in organizations. In established and institutionalized organizations, new communication technology can reinforce existing ways of conduct, while in less institutionalized groups, features of new web technology may have greater implications for the further development and shaping of these groups.

Article 3: Internet communication: Does it strengthen local voluntary organizations?

In article three, I investigate whether communication through the internet can strengthen local voluntary organizations. In times of a more challenging and competitive environment for voluntary organizations, information and communication technology has been held up as one way to address these challenges. The main research question is how the structure of communication through the internet is related to organizational change, face-to-face activities and the sustainability and vitality of organizations. To respond to the research question, I use survey data from organizations in the county of Hordaland, Norway. First, I investigate factors that

increase the likelihood of implementing internet technology. Next, using longitudinal data, I analyze the implications of internet technology for the organizations.

The analyses demonstrate that a general use of the internet (e-mail and web) in local voluntary organizations is extensive, particularly in larger and younger organizations, in urban organizations, and in organizations with a higher proportion of younger members. In the organizations, the internet works largely administratively and as a one-way channel of information from the organization to its volunteers, members, and other organizations. The use of regular homepages is common, while the adoption of social network sites is less common. The web is less appreciated as an arena for dialogue and discussion between active members. This finding confirms earlier studies indicating a lack of discussion and members' dialogue on the organizations' websites. The analysis further shows that internet usage is positively associated with face-to-face interaction in social activities in the organizations and that organizations using the internet experience an increased growth in membership. The findings suggest that communication through the internet and face-to-face communication is not an either-or phenomenon, where communication either takes place via the internet or face-to-face. Rather than replacing social connectivity and face-to-face interaction, the use of the internet is related to a strengthening of organizations as an arena for face-to-face activities.

Being online is also related to the centralization of decisive power in organizations, and organizations appreciate the internet mostly for one-way communication. This finding challenges the ideal of a participatory democracy and the local members' influence within voluntary organizations' central administration. This finding also goes against a conception of web technology as a transformative force in organizations, favoring the network-based organization of collective action. The lack of online dialogue may represent an increase in power and influence on behalf of the organizational leadership and the sender-side, or those who control homepages, email accounts, or profiles on social network sites. This also supports the notion that when it comes to today's local voluntary organizations and their members, the internet's

potential for deliberative, two-way communication is unfulfilled. It seems rather that the largest advantages are perceived by an organizations' central level, and concern the function of information dissemination.

Article 4: Associations online: Barriers for using web based communication in voluntary organizations.

In the fourth and final article in this dissertation, I (and two co-authors) further investigate organizations from the Hordaland study, and how they are represented online. Based on organizational theory and former empirical research, we hypothesize that different types of organizations will be differently conditioned to implement new means of communication and to meet changes following such implementation. Analyzing survey data from 1104 organizations' web representations and organizational traits, we investigate the relations between six traits of organizations: size, inertia, structure, age-divide, resources, and orientation, and how they are represented online, whether regular homepages or profiles on social network sites.

Despite the generally high level of Facebook and social network site adoption in Norway, we find local level voluntary organizations not to embrace social network sites to the same degree. Websites are the main web representation, and information provision is the main function of both types of web representations for voluntary organizations. Analyses of potential barriers to social network site adoption point to the size and complexity of organizations and to the 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 social network sites to be useful. Small organizations in small communities with few active volunteers might, therefore, not gain much from adopting social network sites, contrary to larger and more complex organizations. Second, an age-based digital divide in the member base of organizations is central for explaining social network site adoption. Most organizations using social network sites are dominated by members between 16 and 30 years. If the member base of an organization mostly consists of older members — non digital natives—it reduces the likelihood of having a social network site. Also, a

small financial economy (resources) and a low degree of formalization (structure) in organizations are negatively associated with having a social network site. These variables are related to the likelihood of using websites much in the same direction as with social network sites, only with a much stronger correlation. A large organization size, large municipal population, large area of coverage, and a large financial economy increase the likelihood of websites. Older member age, however, reduces it with an almost linear effect.

6. CONCLUSION

Because Norway has a particularly high internet and social network site usage, I conceive of Norway as being in a process of becoming a network society. As such, social and media networks may contribute in shaping the Norwegian civil society, giving rise to new forms of voluntary and political participation and new forms of organizing – possibly challenging existing organizations.

In the theory of network individualization (Castells, 2001; Wellman, 2000), through web technologies, individuals are argued to be freer to navigate socially, politically and geographically while still being connected in social networks. More reflexive forms of volunteering have been observed internationally (Hustinx and Lammertyn, 2003) and in Norway (Wollebæk and Sivesind, 2010), with fewer bonds between organizations and individuals and more non-committal, short term and instrumental volunteering. Internationally, new forms of online voluntary and political action have emerged, in which the role of established organizations is less prevalent while web technology increasingly takes on the role of an organizing agent (Bennet and Segerberg, 2013). Voluntary and political organizations have experienced declining membership figures and institutional loyalties internationally (Bennet, 1998; Putnam, 2000) and to some degree in Norway (Wollebæk and Sivesind, 2010). Web technologies have been seen as potential remedies for such developments (Bennet and Segerberg, 2013; Tranvik and Selle, 2008), but traits of new web technology may also challenge the logic behind a traditional voluntary organization. In any case, different types of organizations will be differently conditioned to implement the different aspects of new web technology. Established organizations with formal and settled structures may have difficulties in adapting to, or may resist adapting to, the communicational and organizational forms facilitated by the new web technology. Organizational norms and culture, and the interpretive flexibility of technology, will also shape the way web technologies are implemented in organizations (Pinch and Bijker, 2009/1987; Orlikowski, 1992).

Using a mixed methods approach, I have investigated some of the implications of web technologies for political participation and for voluntary organizations in Norway. This has been concretized in four specific research questions in four individual journal articles: 1) how do new forms of political participation through Facebook differ by level of urbanity in municipalities, and how are traits of social networks related to this type of online political participation, 2) how can web technologies shape and be shaped by organizational norms and culture, 3) how is the structure of communication through the internet related to organizational change, face-to-face activities and the sustainability and vitality of voluntary organizations, and 4) what barriers might exist for implementing new communication technologies in local voluntary organizations?

Article one indicates that rather than an urban-rural divide in the diffusion of new political forms on Facebook, other factors – most significantly traits of social networks – seem to be related to political participation on Facebook. Diversity in types of Facebook contacts and in offline discussion partners is positively associated with political activities on Facebook. Article two illustrates different enactments of practices surrounding web technologies in organizations and how they can vary from centralized one-to-many communication to a more decentralized many-to-many communication. Different structures, norms and cultures in organizations will shape the implementation of and practices surrounding web technology, and the technology may further reinforce these structures, norms and cultures. In article three, the analyses indicate that the use of e-mail and the web, but not social network sites, is extensive in local voluntary organizations, particularly in larger and younger organizations, in urban organizations, and in organizations with a higher proportion of younger members. The internet is used mostly as an administrative tool and as a one-way channel of information. The use of the internet is positively associated with increased face-to-face activities and membership in the organizations, but is also related to a centralization of organizations. The fourth article shows that a certain numerical point must be reached in terms of organizational and community size for social network sites to be useful in voluntary organizations. Small organizations in

small communities with few active volunteers do not adopt social network sites as much as larger and more complex organizations. Also, if the member base of an organization mostly consists of older members, the financial economy is small, and the organization has a low degree of formalization, which reduces the likelihood of having a social network site profile.

With regard to the question in the title of this dissertation "From face-to-face to Facebook?" the four articles point to different implications of web technologies on face-to-face communication in the Norwegian civil society. Article one shows that political participation can take place on Facebook as well as through face-to-face encounters and other traditional participation channels. Article two illustrates that Facebook communication can supplement face-to-face communication in the running of some organizations. Article three shows that Facebook is less used in organizations overall but that general internet use in organizations is positively associated with face-to-face activities in the organizations. Article four suggests that face-to-face communication and other traditional forms of communication might be sufficient for certain organizations and their activities, limiting the use of new communication channels such as Facebook.

In a summary, I argue that the contributions and findings from the four articles, and seeing them in relation to the theoretical discussions in this thesis, point to a two-sided story of the implications of web technologies in the Norwegian civil society. On one side, web technologies in the form of web 1.0 with traditional web sites and one-way communication are widespread among local voluntary organizations. A traditional logic of organizing and centralizing information, knowledge, interests and decisive power in a formal organization with defined boundaries seems to go well with the logic of web 1.0. The use of web 1.0 technologies is positively related to signs of organizational growth and vitality and to a centralization of organizations. Established voluntary organizations can implement social network sites in their organizational communication, but it seems to be driven by the traditional

organizational logic of centralized one-way information dissemination to a defined audience.

The other side of the story is the increasingly decentralized many to-many-communication of web 2.0, which favors individuals connected through social networks mediated by web technology. Accordingly, web 2.0 seems to clash with the logic behind established formal and centrally controlled organizations. This thesis finds traces of a network individualization process in regard to the diffusion of new forms of political participation on Facebook, which seems to be more related to traits of our social networks both on- and offline, than traits of our place of residence. Also, in newly initiated groups and networks less constrained by institutionalization and structural inertia, the web 2.0 features will more easily be implemented and used for multi-way communication, mobilization and participation in less centralized networks.

More research, with different approaches, methods and data, is needed in order to keep track of the development in this field, specifically, how established organizations will relate to further technological and communicational changes and the potential implications for the organizations and the organized civil society. Also, we need to further investigate new forms of individual volunteering and collective action facilitated by web technologies and the potential implications for the civil society in Norway.

Although I have only provided parts of the story of the implications of web technologies in Norway, I have contributed in filling some gaps in the empirical knowledge of how web technologies are used and the implications of web technologies for voluntary organizations and political participation. In relation to general sociological theory, this thesis supports notions of a complexity of contemporary society, with new dividing lines between social levels and social spheres. It supports a theory of the network society (Van Dijk, 2012) in which its manifestations and the implications of web technologies are diverse. At every societal level and sphere, particular properties emerge that specifically apply to that level, and

they should be analyzed accordingly. Individuals and organizations, different types of organizations and different organizational levels can all respond differently to changes in communication technologies and practices. Accordingly, this thesis also points to social change due to communication technology, not as a matter of necessity, but as a result of a gradual process of structuration (Giddens, 1976; Giddens, 1979; Giddens, 1984), or mutual shaping (MacKenzie and Wajcman, 1999), between human and communicative action and social structures. Communication technologies can define as well as enable, shape and be shaped by human beings, organizations and systems, and should henceforth be an apparent field of sociological study.

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