

Norbert Kersting (ed.)



Electronic Democracy

The World of Political Science:
The Development of the Discipline Book Series
Edited by Michael Stein and John Trent

Barbara Budrich Publishers



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The World of Political Science— The development of the discipline

Book series edited by
Michael Stein and John Trent

Professors **Michael B. Stein** and **John E. Trent** are the co-editors of the book series “The World of Political Science”. The former is visiting professor of Political Science, University of Toronto, Toronto, Ontario, Canada and Emeritus Professor, McMaster University in Hamilton, Ontario, Canada. The latter is a Fellow in the Center of Governance of the University of Ottawa, in Ottawa, Ontario, Canada, and a former professor in its Department of Political Science.

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Foreword

This is the eleventh volume in “The World of Political Science” book series sponsored by Research Committee 33 on the Study of Political Science as a Discipline”, one of about 50 Research Committees of the International Political Science Association (IPSA). Each volume of the series has been prepared by leading international scholars representing one of the research committees of IPSA. This volume is one of the four final volumes in this book series, all published in July, 2012, just prior to the Madrid IPSA triennial World Congress. The series consists of 12 volumes in all, published between 2004 and 2012.

“The World of Political Science” series is designed to fulfill several different objectives. First, it is international in scope, and includes contributors from all major global geographic regions. Second, each volume provides an up-to-date overview of a specific sub-discipline of political science. Third, although prepared by leading academic specialists, its volumes are written in a manner accessible both to students of that field and those who wish to learn more about it. Fourth, the books are meant to offer both a state-of-the-art overview of the sub-fields and an explanation of how they have evolved into what they are today. Thus they serve as part of a broader objective of evaluating the current state of development of political science. Fifth, on the basis of their evaluations, the volume editors and authors have made proposals for the future progress and improvement of each sub-field, and also for the discipline as a whole.

This eleventh volume in the series was authored primarily by members of IPSA RC 10 (Electronic Democracy). It is a book that is both very current and futuristic in its relevance for the systematic study of politics. It summarizes and evaluates the comparative impact of the Internet and social media on evolving global political democratic trends. Its editor, Norbert Kersting, offers as its principal argument that “the development and proliferation of the Internet has inspired not only techno-utopians, but also activists, academics, and political philosophers in recent political debates.” It explores general electronic trends and developments in the social and political spheres, and considers whether and how the main challenges to democracy in this new

millennium may be related to these new information and communication technologies. It also evaluates whether the problems associated with these new developments can be attributed to the electronic technologies, and whether they can also be solved by them.

The book encompasses several major themes in the current debate about electronic media, including the role played by social networks in political mobilization during the Arab Spring of 2011-2012 (Norris); the range of social networks and participatory, user-generated webs (Abbott); the impact of electronic campaigning on political elections, civil society protests such as the Occupy Movement in the US and globally in 2011; political party communication with the public and campaigning (Roemmele); techniques of face-to-face participation and open government (Wojcik); electronic voting (Hall); and so-called Voting Advice Applications or VAAs (Ladner/Fivaz). The editor concludes that “although hardly predictable”, electronic democracy has already produced 1) enhanced political transparency, 2) greater use of Internet voting; 3) increasingly blended online and offline political participation; 4) a more hybrid form of democratic participation involving direct, dialogical and representative democratic forms; 5) a more open and transparent form of e-innovation; and 6) an amalgamation of new and different information and communication functions.

A special thanks is owed to Barbara Budrich and her staff for their willingness to produce this volume in an amazingly short period of time, without sacrificing its publishing quality. We also acknowledge our debt once again to the Social Science and Humanities Research Council of Canada (SSHRC) for its initial Development Initiatives Grant (#820-1999-1022) and subsequent extensions; to members of the IPSA Executive Committee, its Secretariat and Committee on Research and Training; and to the members of IPSA RC 33 for their continued encouragement and support.

As series co-editors, we assume ultimate responsibility for this book series and its objectives. This joint and equal collaborative effort has given us immense satisfaction and a strong sense of academic and personal reward. We are proud and also somewhat sad to finally bring the series to a conclusion at this time (July 2012).

Michael Stein (Visiting Professor, University of Toronto and Emeritus Professor, McMaster University)

John Trent (Fellow, Centre on Governance and former professor, University of Ottawa)

Preface

The rapid spread of the Internet since the 1990s has led to high expectations for democracy and public administration. Democratic participation can be enhanced by electronic channels for information processing, communication and transaction. Through electronic devices these features are also becoming increasingly integrated. From the PC in the parlour, for example, the citizen may get information about local and international politics, discuss political matters with fellow citizens or with council members, and, when his/her mind is made up, (perhaps) cast a vote for the party or candidate of his/her choice. E-democracy and e-government includes all forms of public service delivery as well as internal public administration.

The Internet has been presented as a means to more transparency in democracy (WWW, e-mail etc.) and new forms of political communication (e.g. social media, Internet conferences,) as well as new form of transaction (Internet voting) as features of e-democracy and e-government.

In 2003 a workshop at Marburg University (Germany) brought together colleagues working on electronic voting, which resulted in a comparative study on this subject. Already at that stage it was obvious that there are threats and promises. It was also apparent that the Internet was much more than a voting machine.

International Political Science Association's (IPSA) Research committee 10 on *Electronic democracy* (RC 10) founded at the workshop in 2008 in Stellenbosch. The "Kick off workshop" took place in 2008 at Stellenbosch University (South Africa). From this group of experts I would like to highlight Prof. Harald Baldersheim (University of Oslo) as being one of the catalysts in this research committee. The workshop primarily focused on two sets of issues: The main focus was on the potentials, problems and experiences associated with e-democracy, and why some institutions (states, municipalities, political parties) seem more willing than others to take steps toward the introduction of electronic voting. Hereby, problems and possibilities of emerging democracies in the global South as well as in "old democracies" were to be analysed. The workshop brought together academic experts from different parts of the world. It highlighted similarities in the continental re-

form trajectories but also drew attention to variations in the strategies of electronic democracies. Path dependency was a perennial feature of the findings, as evidenced by the importance of different politico-cultural contexts and national administrative and legal systems.

In the following workshops it became clear that with the development of the information and communication of social media, political aspects (such as copyrights, fair use, freedom of information etc.) became more important. Meanwhile there is a website (<http://rc10.ipsa.org>), a mailing list and vibrant international community. In the meantime different workshops in Chile, Slovenia, Croatia, Luxembourg were co-sponsored by RC 10. Further conferences are planned for India, US etc. There is a strong cooperation with other IPSA research committees – especially with IPSA’s research committee on Political Communication. A fruitful collaboration exists also with ECPR groups working on electronic democracy. RC 10 liaised with annual international conference organizers such as UN-ICEGOV (Estonia), CEDEM at Krems Universities and EVOTE in Bregenz (Austria) etc.

I highly appreciated the help from my assistants in Münster, Sophie Schmalz and Thomas Pinz. Thanks also go to my students and doctoral candidates at the seminar at Münster University working on electronic democracy. Additionally I have to thank Melanie Bailey, Cameron Brown, Jakob Horstmann for their copy editing and for proofreading. I would like to thank Barbara Budrich and her team and the editors of this series Michael Stein and John Trent for their outstanding support. On a personal note, I would like to thank my wife Bettina and my children Paulina Kersting and Ben Kersting who followed me to the University of Stellenbosch at the Southern tip of the African continent and back to Germany and the Westphalian University Münster. Intercultural discussions can sensitize us to multicultural understanding. This study tries to offer one such step in this direction.

Münster, June 2012

Norbert Kersting

1. The Future of Electronic democracy

Norbert Kersting

The development and proliferation of the Internet have inspired not only the techno-utopians but also activists, politicians, academics and political philosophers. In the 1990s a discussion about the information superhighway resulted in the idea of new democratisation and a revival of an idealised Athenian democracy. Expectations regarding the Internet were very high. The Internet was supposed to strengthen political rights and to bring more transparency and democratisation.

Already in the 1980s the peace movement, as well as the environmentalists, used mailboxes and e-mail. The new techno-utopiasm declared the “Independence of the Cyberspace”. The idea of counterculture very much similar to the movement in the 1968 developed. With commercialisation, the dot-com euphoria, and the new economy in the late 1990s, some of these dreams and utopian ideals vanished and trends towards commercialisation became obvious. On one hand, further discussion about new information and communication technologies resulted in some criticism of a reduction of civil liberties and extensive chances to control by the state (big brother, Orwell in Athens) not only among the academia. On the other hand the implementation of new social network instruments using the Internet, often described as *web 2.0*, revived expectations regarding the process of democratisation. It was thought that these social media would reinvigorate a society which was characterized as individualistic and by social disengagement.

The *web 1.0* focused more on information and less on communication or participation (Abbott in this volume). Besides its *one to many communication* the Internet also allows a *many-to-many communication* flow often described by the term *web 2.0*. Tapscott and Williams (2010: 45) argue, “[...] that the Web is no longer about idly surfing and reading, listening or watching; it is about peering, sharing, socialising, collaborating and most of all creating within loosely connected communities”. Social networks (SNS), blogs, microblogging social bookmarking services, video and picture communities, the keys and outcasts constitute the broad range of social media instruments. The term *web 2.0*, introduced by O’Reily (2005), is criticised in academic discourse. It is seen as a misleading term because some argue that with the so-

cial web no new version of the Internet was implemented, but a new social characteristic with potential for communication appeared. In social media, user-generated content became more important. Web 2.0 is seen as an easy to use, participatory Internet. According to the theory of communication (actor network theory) from the French sociologist Bruno Latou, citizens are more attracted by low hierarchical open networks and particular public spheres.

Besides social networks, governmental strategies, such as open government and open data, are discussed. Open government is seen here as a government strategy which includes citizen participation in the process of political decision making and which allows open access to public data to enhance transparency and to assist policy making processes.

In the following chapters, the political context of electronic democracy will first be analysed. What are general trends and developments in the political spheres? Can these challenges be tackled and solved by the instruments? Next, the new trends in the development of democratic innovation will be discussed. Different functions and types of electronic democracy will be presented. A range of participatory instruments will be analysed. Democratic innovation pronounces the development of direct and deliberative democracy.

Next, the focus will be on problems and challenges introduced by the Internet and the new information and communication technologies. What are the main socioeconomic problems and challenges in the new millennium? Are these problems related to the new information and communication technologies? The unequal proliferation of Internet users will be debated. Social media describes new social network and communities in the Internet. Then, the role of the typical digital individual will be analysed. Finally, typical digital dilemmas, ethical questions and problems are discussed. In the final chapter the prospects of electronic democracy will be considered. What is the future of democracy? Is the future of electronic democracy focused on developing pure *netizens*. These are participating in an online cyberworld, or are we heading towards a stronger mix between the online and offline world?

At this point it is relevant to consider if the socio-economic and political challenges can be solved. What are the prospects and the trends regarding the new media? Will these future instruments contribute to a qualification of democracy? It is normal practice to discuss future developments in the final chapter, but this is difficult because we do not know what future inventions will be like. A comedian once pronounced the following dictum: "It is difficult to make predictions, especially about the future." New communication information technologies are one of the most flexible, innovative, and least predictable fields in our society.

1.1 Political trends: Crisis of political legitimization, political apathy and protest

In the 1970s most democracies were rich, industrialised nations in the Western hemisphere. Only 14 nations in the “Third world” were characterised as democracies or polyarchies. Besides the communist and socialist countries in Eastern Europe, South East Asia and some Latin American and African regions, traditional authoritarian rulers and military dictatorships also existed (Berg-Schlosser/Kersting 1996). In the 1970s the military dictatorships in Portugal, Greece and Spain collapsed. The next wave of democratisation started with the military withdrawal in Latin America. In Latin America the third wave of democratisation starting in the 1970s, and saw a resurgence of presidential regimes. Some of these developed in reaction to strong authoritarian regimes, such as in Chile and Paraguay. Democratisation gained impetus with the demise of the Communist bloc (Huntington 1991). In Africa the winds of change brought with them a wave of democratisation in the early 1990s. Before the 1980s only Botswana and Mauritius were seen as democracies, and most countries were regarded as one-party systems and were authoritarian and/or socialist in nature.

1.1.1 End of history and post-democracy?

The end of the Cold War introduced a number of new democracies, but the critique of electoral democracies started after a short democratisation-honeymoon. This rapid breakdown of some democracies and the phenomenon of failing states were not evident at the end of the 20th century. The predicted “End of History” (Fukuyama 1992) and the victory of democratic systems seemed to be a myth in some countries, especially in Africa and Asia; the often problematic nation-building has not yet ended, and with the breakdown of some dictatorships, ethnic cleavages have led to civil war and segregated authoritarian sub-systems.

However, the old autocratic regimes in the Middle East have continued to follow traditional and often religious authoritarian rules. During the demonstrations of the Arab Spring in 2011, some of these authoritarian regimes collapsed and others are under pressure. In the second decade of the new millennium, countries like China, Indonesia, etc. seem to be more open to democratic ideas.

Political systems worldwide seem to be under stress. New, often unelected institutions, such as technocratic advisory boards and the media, are gaining influence. Because of privatisation, the public sector seems to be partly losing control.

Elected parliaments appear to be becoming obsolete and are no longer a forum or *plaza* for open discussion or decision-making (Crouch 2004). Instead,

commercialised, frequently *deformed* and skewed media often seem to shape public discourse (Bryant/Oliver 2009). But which institution is guarding these guardians? Furthermore technocratic administrations seem to dominate decision-making. This may lead to a crisis in the legitimacy of local democracy based on political cynicism as well as on political apathy, an absence of political interest, and finally a crisis in participation.

The growth of non-voting is a complex phenomenon that continues to lack adequate explanation (Leduc et al. 2010). The decline of traditional social and concomitant political ties, such as class and church, may be factors. Post-materialist values among the younger generation may be part of the explanation, leading to a preference for unconventional channels of participation (demonstrations, NGOs, referenda, single-issue politics, etc.). The feeling of civic obligation that has so far characterized the voting habits of the older generations is on the wane in other groups (Wolfinger/Rosenstone 1980; DETR 1998, 2000).

Younger democracies are often regarded as having degenerated into purely electoral democracies. The dominance of political parties is highly criticised (see Dalton/Wattenberg 2000). This has led to political apathy as well as to cynicism. But the whole political process is in distress. Post-democracy is related to Post-Parliamentarism (Crouch 2004). Parliaments are losing their power to other democratic instruments such as direct democracy referendums, constitutional courts, elected administration, and supranational or local institutions. During the wave of privatisation starting in the early 1980s, and pushed by new public management strategies, non-democratic private institutions took over former state responsibilities. Furthermore, at the supranational level such, other indirectly elected (European Union) or non-elected institutions, such as general trade agreements that lack democratic legitimacy (WTO), became prominent. This became obvious during the financial crisis in 2008 with its strong privatisation and extreme market liberalism. Nevertheless, in some countries this strategy of privatisation was stopped. Pushed by civil society, a re-municipalisation and a revival of state controlled (or owned) public enterprises brought the state back in. Reinigorated state companies have to show that they can compete with private companies without showing the negative effects of state enterprises such as nepotism and a lack of efficiency, etc.

Political dissatisfaction is not only based on political apathy but also on political cynicism (Kersting 2004). It is no longer political apathy and lack of knowledge of politics which are seen as main reasons for non-participation. On the contrary, an improved educational system results in better knowledge of some aspects of politics.. But this comes with political cynicism, a feeling of little political efficacy and a high level of dissatisfaction with the political system and political parties (Kersting/Cronqvist 2005: 28; Scarrow 2010). High expectations concerning policies often coexist with high expectations concerning the capacity of the state. Rather, stronger individualism together with a breakdown of societal networks has led to stronger demands and expectations directed to the respective political system.

Some authoritarian regimes reacted by using repression. Most governments reacted by providing more democratic space and implementing new instruments for participation such as *invited space* (Barber 1984; Budge 1996; Kersting 2008). Political systems implemented new invited space such as referendums, round tables, forums etc. Some of these new experiments were dominated by political parties and formal institutions. In this case, the people were still not satisfied, and found their own channels to express their interest using *invented space* as an answer to this hierarchically dominated intervention. New forms of protest and participation were developed as a kind of public counterweight to existing structures. They were used to challenge existing power structures and dominance by the old ruling elites. The question is whether these new structures can become sustainable forms of de-liberation and open democracy, but it can be shown that new elites emerged.

New social movements have led in some cases, to violent demonstrations as in London (2011) and in South Africa (2008), but also to non-violent protest that subsequently turned violent such as Stuttgart (2010) or to non-violent demonstrations such as the Occupy movements in 2012. The new political movements use on-line and off-line instruments. They connect people as well as spread and exchange ideas. Some focus on Internet copyrights and freedom of the media. Some of them are rooted in the old classical political cleavages, and some go further than the political issues that they protest about. The new social movements seem to incorporate ideology and agendas which go beyond single issue protest. It seems as if they are developing the old idea of participatory democracy, namely that political participation and protests against the deficits of the existing political system are a civic duty in themselves. In Sweden and in Germany, new cleavages have led to the development of new political parties such as the Pirates party. Meanwhile, the Pirates party is losing support in Sweden, but in Germany it is represented in a number of parliaments. Through the development of new movements and political parties, it can be deduced that the message and medium overlap. In this new party the message and medium overlap.

Is there a crisis of democracy? Globally electoral representative democracies are highly criticized. Voter apathy and cynicism is growing. But unconventional participation is also facing a crisis. New social movements often seem to deteriorate into violent meaningless protest. The de facto reduction in pure electoral democracies (*ballot option*) and the escalating political violence (*brick option*) are both criticized. Are there any alternatives to the brick and the ballot? Is there a new cleavage in the field of new media, from which new political parties can emerge?

– *Crisis of Democratisation and Waves of Democracy: brick or ballot?*

Conventional political participation is decreasing. Political parties are seen as *empty railway stations* (Alain Touraine) or *abandoned piazzas* (Giacomo Marramao), in which political debates are lacking (Kersting 2003).

Since the 1980s, voter turnout has been decreasing dramatically in a number of countries. The greater volatility of electorates is affecting the established parties, which are experiencing problems mobilizing their core partisan groups. Low voter turnout is also seen as a symbol of diminishing legitimacy of the political system. Widespread participation in free and fair elections is postulated as a constitutional goal and is seen as an important element in the definition of democracy (Dahl 1989). Some argue that the spread of negative attitudes towards politicians and parties represents a crisis of the political system (Lijphart 1997).

Political participation has experienced an expansion of other types of participation besides electoral and party participation, and an expansion of unconventional participation. For a long time political participation has been influenced by voter turnout. New, *conventional* participation patterns have developed next to the electoral participation of the 1950s (Barnes/Kaase et al. 1979). The parties themselves have changed from elite-parties to public “catch-all” parties. Conventional participation includes, above all, campaign work and political contacts. Voting nevertheless remains the central act of participation. As a consequence of the 1968 movement, unorthodox acts of participation have become increasingly relevant. The external parliamentary opposition seeks exertion of influence through protest actions in social movements. Since the 1990s, in the frame of the governance strategies with regard to participation, two development paths have become clear. Next to social engagement in the sense of self-help, there is an expansion of possibilities for participation through politics. Representative democracy, i.e. parliaments and political administration, offers stronger citizen participation as well as a way to order channeled protest actions.

At the same time, next to declining political participation, an increasing participatory divide and a biased social structure are appearing (Kersting 2006). Voter turnout is decreasing, except in countries with obligatory voting. Voter turnout is based on media coverage and individual competence. Voter turnout at the national level, for example in Sweden and Germany, is about 80%, but in Great Britain and France on the other hand, it is only about 60%. It is declining drastically in second order elections (EU elections, municipal elections). In most countries, voter turnout in municipal elections is about 20% less than in national elections.

A lack of participation is not only a problem of representative democracy but also of direct democracy. A similar phenomenon appears in many countries which have even lower voter turnouts in referendums (Kersting 2008). Also, participation in dialogical participatory procedures is strikingly low. Here, large population groups can only be mobilized by a supportive programme and special incentives. Organisations that regularly demand an honorary engagement of volunteers complain about very little participation and a lack of long-term sustainable engagement.

At the same time political participation shows a distortion with regard to age, but also with regard to the social structure (income, education). Sections of the population with higher education are more strongly politically engaged. Reasons for non-participation are political apathy and cynicism. Political apathy is characterized by political disinterest and a diminished availability of resources, i.e. little political knowledge. This political cynicism is marked by a high availability of resources (high political knowledge), a high discontent regarding the participation possibilities (input-legitimacy), and the policies (output-legitimacy). The younger generation is marked by non-participation both due to apathy and cynicism. This applies to elections as well as dialogical participatory instruments. The election norm (*elections as a citizen's right and duty*) is more present in the older population groups, who have often experienced more authoritarian rulers. Demographic change also intervenes. The new old- group is simultaneously the time rich-group. These active seniors and old age groups participate more regularly in political organisations and institutions. In contrast, within the developing countries, the disadvantaged groups are not time rich, but they have to respect efficiency within the context of multi-occupationality. Participation is dependent on the political socialisation, i.e. the dominant value system and political interests (election standards, etc.), as well as the available resources (income, education, knowledge, time) and integration into social milieus (social control). It is moreover dependent on the existing participation opportunities of the political institutions (some want, some cannot, some are not asked).

1.1.2 Democratic innovation

As a reaction to the crisis of the political system, legitimacy can be increased in the input-and-output area. Since the 1990s, in many countries, there has been *political reform* and administrative reform, mostly by new public management strategies. Both expanded the participatory rights of the population as customers and as citizens. Administration and political reform are the two dominating reform paths of the 1990s and two sides of a coin (Kersting 2004). Governance is defined here more as the intensified inclusion of the civil society and formerly blocked interest groups in decision making processes and less as a cooperation of citizen and private organisations in service production of public goods. This Governance reform process highlighted the political inclusion into the political process (DiGaetano/Strom 2003).

New instruments for the qualification of democracies are seen in the field of direct, dialogical, as well as electoral participation, in the field of empowerment, as well as in the field of control of power (Kersting/Schmitter/Trechsel 2008).

Here democratic innovations focus on new institutions of participation (Smith 2009). In the following four different types of democratic innovation will be presented. These four different fields can be characterised briefly.

– *Symbolic participation: from representative democracy to demonstrative eventual participation*

The critique against representative forms of democracies is characterised by the distrust of trustees and delegates dominating the invited space. This leads to new forms of symbolic politics and political demonstrations. Individualism and new lifestyles distract people from commitments to long-term engagement in political organisations. People prefer symbolic events where they can express themselves.

Demonstrative democracy includes forms of participation which are not always instruments of the invited space produced by government or political parties, but are sometimes introduced and invented by civil society. New forms of demonstration include civil society protest, flash mobs, as well as citizen information systems organised by civil society groups. These demonstrate protest against or in favour of certain policies. They indicate problems of corruption and mismanagement as well as local, regional, and national best practices.

– *Informative Democracy: From Spectator to Information Subject*

Electoral representative democracy has developed new instruments, which not only inform the citizen, but also simultaneously ask the citizens the reasons for their vote, i.e. turning the citizen into an information subject. Citizen information systems try to inform the population in time. Timely participation should increase the control function (whistle blower-function), especially of the civil society organizations. These are also often initiators of parliamentary control systems, etc. The target-group-specific processing of the information is a problematic point. Information must range between reduction of the complexity and detailed information, as well as between infotainment and scientific expertise to make it interesting and relevant for the citizen. The orientation towards the needs of the citizen leads to a stronger focus on crowd sourcing (Surowieck 2004; Chesbrough et al. 2006). The detection of knowledge, preferences and interests of the citizen and the wisdom of the crowd is relevant when it comes to their own preferences. This is related to open innovation. Innovation by the citizen is oriented towards their needs.

– *Institutionalized Political-Monitoring: From facilitated representative to direct democracy*

Political control and monitoring is also guaranteed in *modern* instruments of *numerical* direct democracy that realize bare effects and veto power through their existence (Setälä/Schiller 2012). Referendums and initiatives open up the inert separation of the representative system of special decision to the concerned citizen. The trustee and advocate-problematic nature do not present themselves in this issue-orientated direct participation. Direct participation circumvents the representatives, but the pure existence of direct democratic instruments, such as initiatives, changes politics. Politicians try to develop adequate policies in order to avoid a citizen initiative. Rather, more

pre-effects of initiatives are generated in the institutionalisation and composition of the referendums that lead to increased participation.

New forms of voting techniques in the field of numerical democracy are discussed. The modernisation of the electoral infrastructure and rearrangements of the electoral rules have one main goal, which lies in the reinvigoration of voter turnout. The different reforms are discussed such as electoral systems, size of electoral districts, conjunction of elections, age of voting, personal vote, compulsory voting etc. Electoral infrastructure incorporates new technological developments but also new bureaucratic settings, and includes different forms of early voting, electoral voting machines, alternative polling booths, electronic voting by telephone, SMS text messages, digital TV, as well as remote Internet voting.

– *Dialogical democracy: From conflict to consensual deliberative decision making*

These new interactive participation instruments are often implemented as open dialogues (Kersting 2008; Sintomer et al. 2010). These procedures tend to move structural conflicts into the foreground. Because they have no decisive character, and are often occupied with basic questions of social formation, they are often discredited as democratic playfulness. Nevertheless, their effects and sustainability are dependent on the political context. Further, procedures try to solve latent and manifest conflicts and aim at consensual solutions and decisions, even if they are not always attainable. However, mediation also belongs to discursive procedures for the management and operation of latent and manifest conflicts. Here, consent and compromise stand in the foreground.

Dialogical democracy includes forms of deliberative participation in different settings. Contrary to numerical democracy, communication and conversation play an important role here. New forums open up this dialogue to ordinary citizens as well as to organised interest groups. New committee systems allow, especially on the neighborhood level, concrete town planning. Meanwhile, these forms mostly refer to a kind of self-selection or representation of organised groups and institutions; the mini-public acts as a citizen jury where a randomly selected assembly discusses certain topics and produces a report in this field.

Tabelle 1: National Parliamentary Elections – Voter Turnout (Percentages)

Continent	Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Africa	Egypt	44.43	-	-	-	-	47.99	-	-	-	-	-	-	-	-	28.13	-	-	-	-	-	27.47
	Kenya	-	58.84	-	-	-	-	65.45	-	-	-	-	-	57.18	-	-	-	-	69.09	-	-	-
	Nigeria	-	-	-	-	-	-	-	-	84.81	-	-	-	49.32	-	-	-	-	-	-	-	-
	South Africa	-	-	-	-	86.87	-	-	-	-	89.28	-	-	-	-	76.73	-	-	-	-	-	77.30
Asia	China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	India	-	56.73	-	-	-	57.94	-	62.04	59.73	-	-	-	-	7.75	-	-	-	-	-	-	58.19
	Indonesia	-	-	90.91	-	-	-	88.93	-	93.30	-	-	-	-	84.09	-	-	-	-	-	-	70.99
	Japan	73.31	-	-	67.02	-	-	59.65	-	-	60.62	-	-	-	59.80	-	67.46	-	-	-	-	69.27
	Malaysia	70	-	-	-	71.80	-	-	-	68.65	-	-	-	-	73.90	-	-	-	-	-	-	75.99
Europe	France	-	-	68.93	-	-	-	67.96	-	-	-	-	-	60.32	-	-	-	-	59.98	-	-	-
	Germany	77.76	-	-	78.97	-	-	-	82.20	-	-	-	-	79.08	-	77.65	-	-	-	-	-	70.78
	Spain	-	-	77.05	-	-	78.06	-	-	68.71	-	-	-	-	75.66	-	-	-	-	-	-	76.03
	Sweden	86.74	-	-	86.82	-	-	81.39	-	-	80.11	-	-	-	80.11	-	-	-	81.99	-	-	84.63
	United Kingdom	-	-	77.83	-	-	-	71.46	-	-	59.38	-	-	-	-	61.36	-	-	-	-	-	65.77
	United States	56.03	-	69.64	-	-	65.97	-	67	-	61.18	-	-	45.31	60.91	68.75	-	47.52	-	64.94	-	59.52
Oceania	Australia	95.31	-	-	95.75	-	-	95.83	-	95.19	-	-	94.85	-	94.32	-	-	-	95.17	-	-	93.22
	New Zealand	85.24	-	-	85.20	-	-	88.28	-	84.77	-	-	-	76.98	-	-	80.29	-	-	-	-	79.46
South America	Bolivia	-	-	72.16	-	-	-	71.36	-	-	-	-	-	72.06	-	-	84.51	-	-	-	-	94.55
	Brazil	84.61	-	-	82.24	-	-	-	78.51	-	-	-	-	68.72	-	-	3.27	-	-	-	-	81.88
	Chile	-	-	90.96	-	-	-	87.42	-	-	87.11	-	-	-	87.67	-	-	-	-	-	-	87.67
	Mexico	-	61.11	-	77.73	-	-	57.69	-	-	57.24	-	-	41.68	-	-	58.90	-	-	-	-	44.61
	Peru	68.38	-	-	-	63.39	-	-	-	-	81.98	81.37	-	-	-	-	88.66	-	-	-	-	-

Source: <http://www.idea.int/vt/>

In most recent decades a trend is visible where different forms of political participation (representative, direct, dialogical and symbolic participation) are intermingling. Democratic innovation leads to hybrid democracy which includes elements of these different forms of participation. Traditional government focuses heavily on representation, and mostly includes different forms of civil society intervention within a neo-corporatist design. Since the 1990s the *governance* strategy has mixed representative as well as direct and dialogical forms of political participation. Moreover, it has included formerly blocked interests groups. This trend towards the strong incorporation of civil society has had some backlashes and declines in implementation, but seems to be an on-going trend in the next few decades. The incorporation and inclusiveness of new social movements as a nucleus for the development of new political parties following new political cleavages shows the connection between demonstrators and representative democracy.

In the last decades referendums and initiatives became en vogue in some Latin American countries. African plebiscites are frequently used in nation building as well as in constitutional processes. In some European countries referendums seem to boom at the local level, where more municipalities implement referendums and initiatives.

Nowadays, democratic innovation seems to be generated mostly in the global South. Brazil and other countries *export* participatory instruments to the old democracies in Europe and Northern America.

New *dialogical participatory instruments* such as participatory budgeting were first implemented within developing countries such as Porto Alegre, Brazil and spread worldwide. Democratic as well as non-democratic countries such as China implement deliberative dialogical instruments at the local level.

1.2 E-governance and e-democracy

The new information and communication technologies led to new democratic innovations. But these also had a strong influence on different forms of economic and social behaviour. Electronic management, and electronic government have focused less on the process of decision-making and more on public services and the production of public goods (Karmack/Nye 2002). These will not be analysed here. In this chapter the focus is on the input, participation, and citizen perspective, focusing less on withinput-services and output-services. E-governance consists of different initiatives (West 2002). We do not concentrate here on instruments of electronic bureaucracy, which may be called self-service (Engström 2000) but rather on electronic participation.

The military as well as academia play an important role in the development of the Internet. In 1996 the APRA-Net connected mainly Californian

universities (Bleicher 2010). In the 1970s local area networks used a similar transmission control protocol to foster global communication, but the main push for the Internet came with the proliferation of microcomputers, such as the Apple Computer in 1977, and the introduction of the World Wide Web developed by Tim Berners-Lee and his hypertext networks.

Electronic democracy is oriented towards electronic possibilities to support democracy. There are, three relevant political functions of ICT: information, communication and participation. (Chadwick/Howard 2009; Zittel/Fuchs 2007; Kersting/ Baldersheim 2004; Karmack/Nye 2002).

The Internet was used for e-mail, and later for peer-to-peer file sharing. In the 1990s big media companies began to use the Internet. New services such as online shopping, electronic banking, and online gaming were introduced. Together with the World Wide Web, other forms such as e-mails, news groups, Internet telephony, chats, and digital videos were implemented.

The political web concentrated on information and on “one to many” communication. Political organizations presented newsletters, contact information, archives and other websites to download material. Communication focused on e-mail and later on web forums, newsgroups, and chat rooms. The discussion on Internet voting, e-petitions, online shops and donating functions became relevant for the political parties. In the following years social media and “many to many” communication became more important. Mobile phones allowed augmented reality and crowdsourcing as well as new dialogical and commenting instruments. Videos portals and SNS (YouTube, Facebook, and Twitter) became dominant. Video supported conference software was used and rating and sharing became popular.

Research in this volume focuses on evaluating the consequences arising from the introduction of these new democratic instruments (Kersting 2004; Kersting/Svensson/Leenes 2004). Are these new techniques strengthening political participation? For example, do they enhance the level of political participation or are they strengthening the political legitimacy of democratic institutions? Here, different functions of Internet instruments such as e-access to information, e-consultation, e-petitions, e-polling and e-forums are relevant. E-government and its political cultural consequences have not yet been analysed adequately. The development of a research agenda is still needed (Jansen/Pridat 2001; Stromer-Galley 2003).

Table 2: Electronic democracy functions and selected instruments

Information	Communication	Participation
News, press clippings, press releases, photo gallery	E-mail	Internet- voting
Newsletter	News groups	E –petition
Webcam-feed, (real simple syndication) rss-feed	Webforum	Register as voter, Register as volunteer
Archives; (Newsletter, Text, Video, Audio, Photo, Speeches, Chat, Other)	Chat forum	Join party: Newsletter, email-list, Events,
Download promotional material	Internet conference	Donate function
Contact information, Links		Online shop (political organizations)
Personal events calendar		Political games, apolitical games
General political information: (inter)national political info, voting procedure info etc.)		E-polling
Voting advice application	Dialogic instruments (chats (party members, others), guestbook, discussion board)	
Augmented reality	Online Commenting on blogs, wikis etc.	
Crowdsourcing time location based on information (Ushahidi etc.), geosocial services	Comments on external instruments (e.g. SNS, Twitter etc.)	Online Rating (voting, rating, social book marking events)
Social media (external colaboration publication) (You Tube, Twitter, Wiki, SNS)	Video Online conference (Barcamps etc.)	
Social media (internal) podcasts, weblogs, YouTubes-plug-in, Twitter- plug-in)		

(Gibson 2003, Lilleker et al. 2009, own overview)

1.2.1 Information

The possibility for citizens to consult dynamic or static political information is an important capability of new information and communication technologies. Similar to electronic billboards, information can be easily disseminated and, as a very important consequence, transparency in local politics can be achieved. Complicated policy making procedures, information on democratic institutions, political parties’ programmes and candidates, etc. can be com-

municated. Such information normally reflects broadcast characteristics because one authority delivers to many citizens. But it could also include one to one communication in which one individual gives information to another (see table 2).

In the beginning, the Internet was developed as an organisation's memory, where information could easily be found in the hierarchical structure of the worldwide web. Hence, public administration can also use it as an archive as well as an information and knowledge management system.

The proliferation of telephone, radio and television and the diminishing role of newspapers started in the early 20th century (Bimber 2003). In the 1990s, the Internet became a multi-dimensional phenomenon. The abundance of information seems to weaken the gate-keeping function of traditional media. This allows political candidates, political parties, and new interest groups to use new means for communication that provide a rich array of content and are less costly (Norris 2002, Gibson et al. 2003). Obviously, easier recruitment of new members by the Internet results in weaker affiliations after membership is secured. Modern communication and campaigning involves the tendency toward opportunism and event-driven recruitment (Wagner/Gainos 2009). Within organisations, information abundance leads to non-hierarchical communication flows. On the other hand the new ICT seem to be colonized by the established and traditional broadcasting media; because of marketing, Internet presence often merges with other technologies (broadcast television, radio, telephone, etc.) (Küng et al. 2008). Therefore, the abundance of information is counterbalanced through a new colonisation of the public sector by media giants who try to monopolize political communication, e.g. using entertainment instruments. On the other hand, in part not only because of the digital divide, the Internet fosters a higher fragmentation of the information society (Klüver et al. 2010). Within the Internet communities all sources of information can survive, both non-democratic and democratic..

In principle the Internet allows inexpensive, decentralised, and widely distributed information within and among organisations as well as between the organisation and citizens. Idealistically, the emancipated citizen selects information and is not manipulated by a monopolised media in the hands of powerful politicians and traditional organisations. In the past, with a dearth of information available, strong political groups were strengthened. Former traditionally strong groups now use low-cost communication to maintain their influence. However, weak and often blocked new elites also use the new technology in order to become strong political players. An essential question is whether new instruments allow former blocked elites to gain adequate control of political institutions.

At the beginning World Wide Web was used by political organisations such as political parties to give information about the political organisation using stop news, press releases and clippings, a photo gallery as well as newsletters. General information about the voting system and politics was

also presented and accessible in archives. In the next step rapid response RSS feeds and WebCam feeds were implemented. Better information was also produced by voting advice applications such as votematch (UK), smartvote (Switzerland, Luxembourg), Wahl-O-mat (Germany) (see Cedroni/ Garcia 2010; Ladner et al. 2010; Trechsel/Mair 2011; see Ladner/Fiaz in this volume). Voting advice applications allow voters to get an overview over party manifestos. With the mobile new technologies, augmented reality functions enhanced the use of the cellphones. This external function enhanced the social media instruments such as podcasts, weblogs, YouTube-plug-ins, and twitter plug-ins.

Because of their relatively good infrastructure when it comes to information and communication technologies, some of the developing countries such as Kenya, India, and Brazil have implemented and developed new forms of information. During the elections in Zimbabwe, opposition parties could document the results in the different polling stations by photographing the results with cell phones and distributing these by SMS within the country, as well as globally. In that way, electoral mismanagement and vote rigging could be prevented or documented. During the ethnic clashes in the aftermath of the 2006 elections in Kenya, cellphones could be used to warn and to witness (in Kishuaheili *ushahidi*) ethnic violence. This form of localized information technologies was used for the development of the smart-phone app *Ushahidi*. *Ushahidi* has the potential for crowd sourcing and this is also seen as one of the top 10 innovations of 2011 (Noble 2011). Here the difference between information and communication becomes blurred. *Ushahidi* is used now to warn of corruption and for other forms of political protest worldwide. As an individualised geographic information system, it strengthens transparency and social control. Other forms of democratic innovations can be used for monitoring politicians (*Abgeordnetenwatch*, *candidates watch*). *UReport* or *SOL* (Uganda) and *Huduma* (Kenya), and were implemented successfully. These forms of politician watch documented behaviour and voting patterns of members of different parliaments and councils, and relate this information to their pre-election promises and their party manifestos.

1.2.2 Communication

Different forms of communication can be characterised by their spatial and time oriented structure, the number of actors, and the level of activity in the instruments. Communication can be visual, auditive, and dynamic. It is a computer mediated communication and only video technology can change it into face-to-face communication. In the 1980s computer mediated communication included videotext, personal computers conferencing, computer bulletin boards, office information systems and electronic voicemail.

In contrast to e-mail as a one-to-one communication and standardized e-mail projects (one-to-many communication), the latter being more informative than communicative, web forums, chat pages, newsgroups and Internet conferences, allow a “many-to-many” form of communication (see table 2). The instruments analyzed here allow participation by large groups. Besides discussions by large groups there are people who are passive followers of the discussion. These observers (lurkers) only use the information function of the Internet and will not be analyzed here.

The Internet also allows information exchange between individuals and groups: a form of individual consultation where authorities address single citizens and receive single replies. Individual communication via e-mails is a fast and inexpensive way for the citizen to contact an administration. It could also be a form of collective consultation, in a two-way information system when citizen address citizens. Collective communication is possible in a less standardized way through web forums, news groups and chat pages. Here, citizens can communicate with each other, but there is also the opportunity to include elected officials or bureaucracy members.

Although blogs were developed by Tim Berners-Lee in the early 1990s, it was in 1997 that the blogosphere became an important instrument. This was due to the development of the weblog community by Cameron Barratts. This was enhanced by the introduction of Google in 1998, which could browse the information of 320 million webpages at the beginning, and YouTube, which became part of the Google family in 2006. YouTube and its slogan “Broadcast Yourself” show that the new virtual room for interaction increased. New forms of citizen journalism compete with traditional media. Broadcasting in the Internet became a “many-to-many” communication. Micro-blogging, such as Twitter, which was introduced in 2006 with limited information of a maximum of 140 characters allowed, became important. Social media services such as Facebook started in 2004. In this way the social web produced an interactive room for network communication.

The problem of spam as an unintended form of mailing mostly for marketing purposes, surfaced with the advent of emails. Everyday communication could become aggressive when it is not moderated and if it is anonymous (Kersting 2005).

John Barger wrote the first weblog-book to document his Internet activities in 1992. Weblogs are bidirectional communications and are dialogical. Blogger-world is a network of different blogs. Weblogs are short, highly interlinked and daily renewed personal websites. “V blogs as the dominant form of user created content is fundamental to YouTube’s sense of community [...] The V blog as a genre of communication invites critique, debate and discussion. Direct response through comment and via video is central to this form of engagement.” (Borges/ Green 2009: 94)

Internet changed the traditional communication from a push model, where a limited number of media produced news and information for a broad

audience, to a pull model of communication, where the users can choose their own media channel produced by an abundance of citizen journalists (Bleicher 2010). So it becomes a medium of choice and a medium of selected communication. This selective communication can also lead to information bubbles where self-selected peers discuss subjects that interest them.

The level of engagement on the Internet ranges from active to passive involvement. Active involvement changes the citizen into a producer of information. Users are not just limited to reception but also to the production of messages within mass communication. Passive involvement represents the typical recipient of information. But as a “lurker” in a many-to-one structure, one can choose one’s own public sphere.

In the typical model sender, the channel and the recipient are invalid (Bleicher 2010). Also, the different types of mass and individual communication vanish and a hybrid form of mass communication with individual communication has developed. Besides individual communication via online telephone, e-mail chats and individual presentation have emerged. These include the construction of identity and social relations as well as e-services and the virtualisation of everyday activities. Mass communication includes information, entertainment, and social communication.

The level of communication ranges from public to private communication. In the past one-to-one communication was mostly characterised by privacy and secrecy, but the new forms of communication are characterised by higher involvement of the public. In the new media in weblogs, the communication process is public and the sender focuses on the recipient as well as on the audience.

Communication has different outcomes. The discourse aims towards a process of generating ideas, exchange and a presentation of opinions, and a decision-making process characterised by bargaining and arguing. Argumentation is a process in which “someone tries to convince someone of something by citing evidence and drawing or suggesting, inferences from this evidence and from other beliefs and assumptions (hypotheses)” (Seboek 1986: 50-51).

In electronic democracy, government regards itself as the important initiator and facilitator (government-to-government, government-to-people and government-to-business). When we analyze political discourses and e-communication, we discover that in some cases government has only an enabling function and in others it is not participating at all. Therefore, our focus is more on people-to-people communication with the electorate controlling the role of government and less on government-to-people communication.

The typology of communication must reflect special characteristics of the medium Internet. We can have a synchronic and an asynchronous dialogue. With the exception of video-discussions, the virtual-dialogue, like a paper-based-dialogue, does not have face-to-face contact and verbal or non-verbal instruments (see table 3).

Table 3: Typology of communication

Medium/Time Split	Virtual	Real
Asynchronous	asynchronous communication (e-mail, newsgroups, web forum)	asynchronous communication (mail)
Synchronous	synchronous communication (chat pages, internet conferences)	synchronous communication face to face (verbal)

(Kersting 2005)

The characteristics of asynchronous paper-based communication show the possible disadvantages and the advantages of an Internet discourse. It is regarded as positive that an asynchronous dialogue allows one to re-think and develop arguments. In this dialogue, free time management is only restricted by uncertainty about the dialogue partner. In general, there is more time to answer questions and to formulate statements in web forums, Internet conferences, etc. Answers can be detailed or brief. It is also possible to use multimedia-instruments (text, pictures, graphs) to support arguments.

A virtual dialogue cannot rely on body language and other non-verbal gestures. Therefore, a higher possibility for misunderstandings exists because of wrong formulations. Generally, a paper-based conversation like this is less complex but re-questioning and re-defining much more difficult. Because direct verbal communication with social contacts is common for an individual, there may also be less experience and self-confidence to participate in the public sphere of a virtual dialogue.

Although this seems to be changing, most web forum dialogues and chats use an alias, not a proper identification as required in most Internet conferences. This anonymity is considered ambiguous. On the one hand, the anonymity allows a frank and free discussion without prejudices and a discourse not based on social desirability. It is a non-hierarchical discourse, because status symbols are not visible. This implies that there may exist fewer communication barriers because nobody fears blame. On the other hand, anonymity is also the main counter-argument. Because of few barriers, there is no responsibility. An aggressive “junk conversation” may occur because it has no consequences and there is no social discrimination (Kersting 2005). To avoid this there is a trend towards registration and authentication.

1.2.3 Participation

Online participation can be seen as the final step at the end of different phases of empowerment and deliberation. This enables consulting and influencing government and parliamentary decisions.

Research is focusing on evaluating the consequences arising from introducing these new democratic instruments. Are these new techniques strength-

ening political participation? For example, are they enhancing voter turnout or strengthening the political legitimacy of democratic institutions?

Empowered with new information and community discussion, involved citizens can partake in the decision-making process, participating in opinion polls and elections, joining parties, donating to political organisations, shopping in political online shops. From the beginning the Internet has had the possibility of conducting electronic polls. Because of the self-selection in these open e-polls, as well as because of the digital divide, the quality of e-polls was poor and e-polls were highly criticized. Most online polls are still lacking representativeness. On the other hand it is an easy instrument with which to collect data and to produce empirical datasets. From the customer's point of view, an evaluation of topics is appealing. Beside electronic polls, rating and sharing activities become more important in the social media (see table 2).

In the formal political process, instruments such as participatory budgets enable citizen to make suggestions for town planning, etc.. In electronic participatory budgeting instruments, they can evaluate and rank the different suggestions. In other forms of participatory budgets, citizen can evaluate the different budgets in the different fields such as culture, sport, infrastructure, etc. These rankings are incorporated into the formal process of decision-making in municipalities.

Electronic petitions have also been introduced in Scotland and the Scottish assembly as well as the UK parliament and in other countries such as Germany. These can affect the process of parliamentary decision-making. Citizens can make suggestions and in a certain period other citizens can support their ideas. This leads to the formulation of a proposal which is to be discussed in Parliament as soon as a certain quorum has been reached. Participating in e-petitions is seen as an additional element for the participation of non-organised citizens.

Finally binding e-referendum and Internet voting are implemented. Some countries have experience with this kind of electronic participation. In the following the benefits of electronic participation will be analysed with the help of an example of this kind of on-line voting.

Online voting

Here the different types of the electronic instruments such as Internet voting, e-petition, and e-polling are relevant. The discussion of online-voting is also marked by many prejudices and speculations (Brookings Institute 2000; Hague/Loader 2002).

Voting by the Internet can be divided into three categories:

- Intranet voting in the polling station: Here the Internet is used to transfer the data from the polling station to the local, regional or central electoral authority. This kind of voting is performed at a public computer and is

similar to a system with electronic voting machines. The connection from the polling station to the headquarters is for the most part by Intranet. External manipulation, for example by computer viruses or external service attacks, is in principle still possible, but can be prevented more easily.

Electronic voting may be characterised by the different channels of communication in the electoral process. Beside Internet voting other electronic devices may be used. It is also necessary to take the level of control of the infrastructure by the electoral authorities as an important variable (Kersting/Baldersheim 2004).

Table 4: Channels of Electronic voting

Channel	Internet	other electronic devices
infrastructure controlled by electoral authority		
++	Intranet Poll site voting	Voting machines
+	Kiosk voting	
-	Internet voting	SMS- text voting Telephone voting Interactive Digital Television voting

(see also Gibson 2001; Pratchett et al. 2002; Kersting/Baldersheim 2004)

- Kiosk voting: Here voters have the opportunity to use special computers situated in public rooms such as libraries, schools or shopping malls. Because the electoral process cannot be controlled by public authorities, special instruments for electronic identification are necessary, for example a digital signature or smart card, finger prints, etc.
- Internet voting: Remote Internet voting at home or from the workplace entails further technical risks. Here, software programs or other instruments such as smart cards are required for identification. However, the social context cannot be readily controlled and problems regarding the secrecy of the vote may arise.

Voting by electronic devices other than the Internet can be handled, for example, by electronic voting machines. Electoral computers are located in the polling station and can be completely controlled by the electoral authorities. Identification can be handled by the officials in the polling station through existing voter registers. External manipulation, for example by computer viruses, Trojan horses or other service attacks, is not possible because there is no external communication and the data is stored on the polling machine. So only an internal software bug can interfere with the electoral process.

It is obvious that discussions of all the different types of innovations lead in the same general direction. The critique of voting machines and the legis-

lation against voting machines in some European countries has had a tremendous effect on the discussion of electronic voting as a whole and on online voting in particular.

Table 5: Prospects and threats of Internet voting

Pros	Cons
Efficiency (Costs, effectiveness etc.)	Political Exclusion (Digital divides)
Political Inclusion (Participation, turnout)	Legitimacy (Technical problems, trust etc.)
Transparency (Voter information)	Identity (symbolism of voting, ritualisation)
	Secrecy (privacy , coercion etc.)

How are electronic elections actually organised? What are the technical means and channels of communications made use of in such elections? Questions can be asked regarding the unequal distribution of capacities for making use of the electronic instruments: Who is likely to prefer electronic voting over ordinary ballots? How will the digital divide affect participation in electronic elections? Does Internet voting really enhance voter turnout, as its proponents often claim? Are the constitutional standards of the secret ballot respected in electronic elections? What are the threats to such standards in such elections? And does Internet voting require changes in electoral legislation? If so, in what ways? Do political and cultural traditions of different countries impinge upon the propensity to introduce Internet elections and other features of electronic democracy?

An issue of special concern is citizen trust in the electoral process. Will Internet voting affect trust in elections? And will concerns with trust retard the introduction of Internet voting more in some countries than in others? Feelings of identity as a citizen may actually be closely related to the act of voting in the traditional way; the trip to the polling station and the ritual casting of the paper ballot into the ballot box may be acts that confirm the status of citizenship and the political significance of an individual. Such attitudes may however be more widespread among the older generation than among young people.

Comparative studies show that there are clear indications for the thesis that due to differences in context, countries will diverge with respect to Internet voting. There seem to be different strategies regarding the implementation of Internet voting (Kersting/Svensson/Leenes 2003).

Given the strong opposition against the implementation of Internet voting, the question is, of course, why other countries are aiming to become Electronic voting champions. Countries regarded as the prospective e-voting champions are Switzerland and Estonia, and, since 2011, Norway. Can we explain why Internet voting is implemented in countries such as Estonia and Switzerland? As suggested, such an explanation may be found in the specific

circumstances and in the beliefs and interests of groups promoting Internet voting.

The first route starts with differentiating between the political spheres, where local election is seen as a testing ground for new instruments of voting. The second path involves differentiating the steps towards Electronic voting. This begins with the introduction of electronic registration, which seems to be more of a problem than the introduction of polling machines. The next step, kiosk voting, leads to less control of the electoral process. The last step, the implementation of remote Internet voting, makes the state controlled electoral supervision of the secrecy and the privacy of the vote impossible. Here, the citizen is responsible for respecting and protecting his/her rights. In the ICT context, the political context, the use of different voting technologies and policy plans in national and federal elections it becomes obvious that important variations within and between the countries emerge (Kersting/Leenes/Svenson 2004).

In some countries postal voting is possible. Here the discussion on the secrecy of the vote reflects similar arguments to those in the discussion on Internet voting. Postal voting is allowed for particular groups such as foreigners or military personnel abroad. The implementation of online voting uses the same strategy. Some pilot projects focus on the citizen abroad. Here the Internet provides an easy and reliable method for these groups to cast their vote.

The introduction of smart cards as identity cards, which could also be used as a digital signature for verification in Online elections, is well on its way in Estonia. In Germany, the legal framework needed to implement the digital signature exists. Furthermore, Germany and to some extent Finland have experience with private sector online elections.

With respect to Paper technologies, all countries still use the traditional polling booth but many also offer the possibility of postal voting and/or proxy voting. Advance voting is possible in most of the countries (delegated voting). France allows proxy voting, while postal voting is not allowed.

Voting machines have a long tradition in a number of countries such as the United States. They were not used countrywide, and electronic voting machines were only introduced in the new millennium. In the Netherlands electronic voting machines were implemented and used countrywide since the 1970s. Germany adopted these polling machines in pilot projects in a number of big cities. Ireland was also interested in implementing the same voting machine. There was criticism in the Netherlands against the trustworthiness and reliability of this voting machine and this led to the cancellation of this idea. In the Netherlands as well as in Germany, the system is no longer in place. Nevertheless in other countries such as India and Brazil, voting machines are used countrywide for presidential and parliamentary elections. Countries such as Russia and Venezuela have had pilot projects.

In Estonia online voting was introduced in national as well as local elections. Here also cyber-attacks were experienced during election. Switzerland

took the longest time to implement online voting in elections as well as in referendums. They plan to use the Internet also for voter registration. Nevertheless, Internet voting has been introduced in only a small number of cities and regions. Norway successfully implemented Internet voting in local elections in 2011. Denmark has been discussing the implementation of online elections.

Internet voting is not yet an accepted method of voting in any other European country, or elsewhere for that matter. The delay in implementing Internet voting reflects the assessment of the promises and risks of Electronic voting. The United Kingdom seemed to be on the brink of deciding in favour of Internet voting. Germany was planning online voting in the long run and seemed to rely on a stepwise approach. However, the discussion and the critique of voting machines stopped this development temporarily. Looking at the reasons why various countries are not opting for Internet voting we find that, together with more formal, legal arguments, Internet voting is currently dismissed as an option because of the threats to the integrity of the voting process. Finland, although advanced in electronic service delivery, has not taken any serious steps towards Internet voting because of its strong democratic tradition and its emphasis on security. In France, a parliamentary bill to introduce Internet voting was not passed, and some experiments were even prevented by a ruling of the Commission Nationale de l'Informatique et des Libertés.

1.3 Electronic democracy and dilemmas: Digital Problems and societal challenges

Democratic innovation by new instruments is facing a number of problems and challenges. In the following section these will be analysed in three categories. The question of the digital divide is crucial in the discussion of the proliferation of these innovative instruments (Norris 2001). Secondly the analysis of Internet users points to some specific problems. Finally the political cultural challenges will be discussed and related to the principles of democracy. These challenges emerge in the field of ethics. The Internet was often seen and used as a memory bank for organisations. Does this mean that it never forgets, and is it necessary to forget? Is there a problem of data protection? The Internet promises a higher transparency and better information. Are transparency and freedom of information problematic? Is basic copyright ignored? If bridging and bonding are seen as the biggest problems in modern societies, can social networks make up for the lack of other social contacts?

1.3.1 Socio-economic developments

The Internet has changed our lifestyle and it is changing our democracy. The introduction of the new information and communication technologies is embedded in socioeconomic contexts. These may differ in different developing and developed countries.

Urbanisation

Worldwide, societal change is leading to higher rates of urbanization. Urban centres and metropolitan areas are growing rapidly (Kersting et al. 2009).

Population density and urbanization (72%) is highest in Europe. In Sweden (90%) and in England, the citizens live in urban agglomerations. Southern and Eastern Europe are less populous and have a lower level of urbanization. The level of urbanization is related to a country's growth rate. In 2005 urbanization growth in Europe was low (0.2%). Density is relatively low in Latin America and Asia (78%). Asian and Latin American countries are characterized by extremely large metropolitan areas. Population density is lowest in the African countries, which, furthermore, have the lowest level of urbanization (38%) (UN 2007). South Africa is an exception, with approximately 59% of the population residing in urban areas. However, in Africa (3.1%) and Asia (2.6%), the process of urbanization is also rapid. Cities in African developing countries have the highest urban growth rates. Hence, while the level of urbanization is generally low in developing countries, the rate of urbanization in these countries is much higher than in the developed countries. This fact is expected to have implications for the implementation of new information and communication technologies.

Social Capital, multicultural societies and individualism

Urbanisation is also related to individualisation and the anonymity of the Metropoles. In industrial countries, socio-cultural change, such as individualisation and social capital, is decreasing (Putnam 2000). Developing countries often perform better when they have well-developed social networks, social capital, and social trust. A relatively high level of mutual self-help can be found especially in poorer neighborhoods. (Kersting 1996). But in countries such as South Africa, the empirical data show a low level of social capital in urban areas. Furthermore social capital is also related to cultural contexts, ethnic and linguistic homogeneity, as well as other indicators. In some ethnic groups a strong identity and a strong bonding exists. Nevertheless, the problem of bridging between the different social groups is critical. This hinders the development of social capital. The diversity in the cities is also related to the high level of in-country as well as international migration. Modern cities are more and more amalgamations of different ethnic and religious

groups and languages, as well as people of different cultural backgrounds. The management of diversity can, on the one hand, foster national identity and national culture, or, on the other hand, strengthen cultural diversity. The latter strategy has the advantage to produce multiple social and cultural lives. With cultural diversity, society benefits from the diverse talents of the different groups, but this diversity also risks creating parallel societies that do not communicate with each other, resulting in conflicts.

Segregation, Structural Unemployment, Poverty

Cities in the developing world face challenges such as migration, demographic change, and structural unemployment (Kersting et al. 2009). Globally, socioeconomic change is resulting in growing structural unemployment, a decreasing agrarian and industrial sector, and the growing dominance of the service sector. The problem of structural unemployment is becoming a major characteristic of most countries.

In developing countries social inequality produces extreme urban poverty. People living in poorer suburbs and high density areas lack employment opportunities and infrastructure such as housing, transport, schools, and sewerage systems (Berg-Schlosser/Kersting 2003). Social inequalities are often extreme. Surviving in the urban centres is to a large extent dependent on monetary income. This is due to the fact that subsistence agriculture is only possible in some urban settlements. The population living in slums is heterogeneous. Living in a slum settlement does not always mean living in extreme poverty. However, the lack of infrastructure (water, electricity, sewerage, waste removal, transport, housing, health care) means that people are living in a vulnerable situation. Hence, municipalities in developing countries have to focus more on developmental policies than those in richer industrial countries. Because of the absence of welfare systems, unemployment is either solved by informal sector engagement and subsistence agriculture (multi-occupationality) or mitigated by other resources (derived from family and neighbourhood networks) (Kersting 1996).

Demographic Change: Grey society and youth dominance

In a number of countries, demographic change is obvious. In developed countries, a tendency towards a 'grey society' resulting from low birth rates and high life expectancy is becoming a problem for, among others, the social welfare systems. In developing countries, the reverse situation applies: life expectancy has been low because of weak health systems, and birth rates have been high. However, in some countries, the population is decreasing because HIV/AIDS is endemic in the 20-40 age group. Youth dominance is therefore prevailing. Older generations are also profiting from better health systems and higher life expectancy. These factors are leading to societies

numerically dominated by children and older people. In some developed countries these groups are clients of an all-embracing social welfare system. By contrast, developing countries often lack proper educational facilities and welfare systems for these groups.

Information, Knowledge and Education

The shift from the agricultural and industrial sectors towards the service sector is associated with the development of a new information society. This is supported by a proliferation of new information technologies (Internet, cell phones, etc), which has major implications for social life, but also for the public sector and governance. Governments have rapidly absorbed new instruments of electronic administration and electronic democracy. Nevertheless, inequalities still exist within different countries as well as between developing and developed countries. The digital divide exists with regard to Internet technologies. In most developing countries cell phone technologies have become important tools of communication in all social groups. Besides the proliferation of some technologies, the educational gap remains. Low levels of education are often found in rural and poorer social groups. Educational programmes are seen as the most important instruments for poverty reduction.

1.3.2 Digital divide

Similar to the political divide there is also the digital divide and the haves and the have-nots of the latest information and communication technology and of Internet access. The debate on the digital divide involves a discussion of national as well as international inequality. Internationally, some countries and some continents lag behind when it comes to Internet access. Some of these continents focus on alternatives to Personal Computers and implement modern technologies to leapfrog the industrial countries. For example Africa is seen as the first post PC- continent not using Personal Computers to a large extent, but focusing on mobile technology.

Although the proliferation of the new information and communication technologies has led to rapid spread since the 1990s, there is still strong disparity when it comes to the usage of these technologies within different countries as well as between different countries. It is also obvious that there is a strong tendency towards the higher mobility (e.g. cloud technology). So indicators focusing not only on bandwidth and Internet usage but also on mobile cellular subscriptions are relevant. In this field it is difficult to find robust and reliable information.

Fixed telephone lines per 100 inhabitants

Continent	Country	1990	2000	2010	1990	2000	2010
Africa	Egypt	0.004	3	54	0	1	9
	Kenya	0	2	87	0	0.32	21
	Nigeria	0	0.41	62	0	0.06	28
	South Africa	0.02	19	100	0	5	12
	Asia	0.25	13	93	0.003	6	30
Asia	China	0	7	64	0	2	34
	India	0	0.34	61	0	1	8
	Indonesia	0	2	92	0	1	9
	Japan	1	53	95	0.02	30	80
	Malaysia	0.48	22	121	0	21	55
Europe	France	1	39	120	0.07	19	65
	Germany	0.34	59	127	0.13	30	82
	Spain	0.14	60	112	0.01	14	67
	Sweden	5	72	114	1	46	90
	United Kingdom	2	74	130	0.09	27	85
North America	Canada	2	29	99	0.29	42	77
	United States	2	28	71	0.36	51	82
	United States	2	39	90	1	43	79
Oceania	Australia	0.12	9	47	0.03	9	16
	New Zealand	2	40	115	0	47	83
	South America	0.04	10	105	0	6	31
South America	Bolivia	0	7	72	0	1	20
	Brazil	0	13	104	0	3	41
	Chile	0.11	22	116	0	17	45
	Mexico	0.08	14	81	0	5	31
	Peru	0.01	5	100	0	3	34

Internet users per 100 population

Continent	Country	1990	2000	2010	1990	2000	2010
Africa	Egypt	0.004	3	54	0	1	9
	Kenya	0	0.41	62	0	0.32	21
	Nigeria	0	0.02	55	0	0.06	28
	South Africa	0.02	19	100	0	5	12
	Asia	0.25	13	93	0.003	6	30
Asia	China	0	7	64	0	2	34
	India	0	0.34	61	0	1	8
	Indonesia	0	2	92	0	1	9
	Japan	1	53	95	0.02	30	80
	Malaysia	0.48	22	121	0	21	55
Europe	France	1	39	120	0.07	19	65
	Germany	0.34	59	127	0.13	30	82
	Spain	0.14	60	112	0.01	14	67
	Sweden	5	72	114	1	46	90
	United Kingdom	2	74	130	0.09	27	85
North America	Canada	2	29	99	0.29	42	77
	United States	2	28	71	0.36	51	82
	United States	2	39	90	1	43	79
Oceania	Australia	0.12	9	47	0.03	9	16
	New Zealand	2	40	115	0	47	83
	South America	0.04	10	105	0	6	31
South America	Bolivia	0	7	72	0	1	20
	Brazil	0	13	104	0	3	41
	Chile	0.11	22	116	0	17	45
	Mexico	0.08	14	81	0	5	31
	Peru	0.01	5	100	0	3	34

Mobile cellular subscriptions per 100 inhabitants

Continent	Country	1990	2000	2010	1990	2000	2010
Africa	Egypt	0.004	3	54	0	1	9
	Kenya	0	0.41	62	0	0.32	21
	Nigeria	0	0.02	55	0	0.06	28
	South Africa	0.02	19	100	0	5	12
	Asia	0.25	13	93	0.003	6	30
Asia	China	0	7	64	0	2	34
	India	0	0.34	61	0	1	8
	Indonesia	0	2	92	0	1	9
	Japan	1	53	95	0.02	30	80
	Malaysia	0.48	22	121	0	21	55
Europe	France	1	39	120	0.07	19	65
	Germany	0.34	59	127	0.13	30	82
	Spain	0.14	60	112	0.01	14	67
	Sweden	5	72	114	1	46	90
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North America	Canada	2	29	99	0.29	42	77
	United States	2	28	71	0.36	51	82
	United States	2	39	90	1	43	79
Oceania	Australia	0.12	9	47	0.03	9	16
	New Zealand	2	40	115	0	47	83
	South America	0.04	10	105	0	6	31
South America	Bolivia	0	7	72	0	1	20
	Brazil	0	13	104	0	3	41
	Chile	0.11	22	116	0	17	45
	Mexico	0.08	14	81	0	5	31
	Peru	0.01	5	100	0	3	34

Source: <http://mdgs.un.org/unsd/mdg/Data.aspx>

Most studies focus on the rate of subscriptions. This data generated by private companies such as Facebook, Google or Twitter tends to overestimate the usage. These companies often use subscription rates and ignore the tendency to double inscriptions, where people are using more than one user-id.

The new information and communication technologies are part of the millennium development goals and evaluated accordingly. It is quite obvious when it comes to the continental comparison that the Internet usage is much higher in the highly developed OECD countries (see UN 2012). Globally in 1990 Internet usage was less than 1%. In North America Internet usage rates increased from less than 42% in the 2000 to 77% in 2010. In Europe in 2000 only 19% of the population was using the Internet and in 2010 already 65% of the population was doing so. Internet usage was much lower in Asia and South America. However, in those continents it raised from around 6% in the year 2000 towards around 30% in 2010. Nevertheless, statistics on Internet users often present a distorted picture. Besides the Netherlands, Norway, Finland, and Sweden with around 90%, leading countries worldwide are Australia (76%), New Zealand (83%) as well as Canada 82% and the United States 79%. In most Central and Northern European countries, about 80% of the population uses the internet. Meanwhile, in Southern Europe, percentages range between 44% in Greece and 66% in Spain. The same has occurred in Eastern Europe with countries such as Belarus (32%), Russia (43%) and the Czech Republic (68%).

In 2010 in Northern Africa Internet usage was between 12% in Algeria, 14% in Libya, 27% in Egypt and 49% in Morocco. In Southern and Eastern Africa, around 25% of the population of Mauritius used the internet, and in South Africa 21% used it, but in most other countries the percentage was much lower. The resource rich Botswana lagged with only 6%. In West- and Central Africa there were countries with no or very little Internet access, such as Ethiopia, Burkina Faso, Chad, DR Congo, Niger, and Sudan. Even in Ghana only 8% of the population had Internet access.

In Asian countries such as Japan (80%), Korea (84%) as well as China (69%), there was a very high level of Internet access in 2010. Countries such as Afghanistan and Bangladesh with around 4%, but also old Russian territories such as Turkmenistan with 2% had a very low level of Internet usage. In Iraq with 6% and Iran with 13% as well as Syria with 20%, the digital divide was obvious.

In 2010 Latin America presented a mixed picture, with some Caribbean islands with a very high level of Internet usage. In most larger Latin American countries, less than half of the population is connected to the Internet, e.g. Brazil (41%), Argentina (36%), Chile (45%), and Mexico (31%).

It can be shown that in most countries the mobile cellular subscription rate is rising rapidly. Fixed telephone lines usage, which is to a certain extent a prerequisite for Internet access, is only going up slowly or is even decreasing. In some OECD countries and the United States fixed telephone line

came down from 68% in 2000 to only 49% in 2010. The same happened in a lot of European countries, where, for example, in the United Kingdom it went down from 60% in 2002 to 54% in 2010.

When it comes to mobile cellular subscriptions a different picture emerges. Here the trend also started in the new millennium. In the global South subscription rates were much higher than the rate of internet users. Mobile subscriptions were higher in Canada and the United States, with 90 subscriptions per hundred inhabitants. But because of double subscriptions, these statistics are slightly distorted. The cellular phones boom started in Europe in the 1990s. In the 2000s in Europe as well as in the United States, approximately 40 mobile phone subscriptions per hundred persons existed. In Africa on average there were 15 cellular subscriptions per hundred inhabitants, but depending on the country and the provider, the picture was quite heterogeneous. In countries such as Malawi, only 20, in Burundi only 13, in Djibouti only 18, in Somalia only 7 and in Eritrea only 3 subscriptions per hundred persons are recorded.

In 2010 a very high level existed in Botswana, Gabon, Libya, Mauritius, Morocco, Seychelles, South Africa and Tunisia. In a number of these countries other human development indicators such as toilets per household etc. were at a lower level than the indicators of cellphone penetration.

Nevertheless, in 2010, the number of smart phones was still very limited and usage of cell phone was focused less on Internet access or social networks than on telephoning and SMS word texting.

In Asia in 2010, there were already a number of countries with a wide-cellphone proliferation. Low percentages were only to be found in the Democratic Republic of Korea (with only two cell phones per hundred), Myanmar, and the poorer countries in Western and Southern Asia. China had 64 subscriptions per hundred, Pakistan and India around 60. But most other countries had much higher cellphone coverage.

In 2010 in Latin America, with some exceptions such as Haiti (40), Venezuela (65), Nicaragua (65) and Mexico (80), mobile phone penetration was high. In these countries cellphone proliferation was similar to that in Europe and the United States.

New information and communication structures and electronic management and government are changing lifestyles not only in the European, American and Asian context, but also in Africa (Kersting/Baldersheim 2005, Bruns 2008). Africa is seen as the first “Post-PC” (Personal computer) continent. Because of the low proliferation of Internet usage, cellphone technologies could develop much faster (Waema/Adera 2011). Because of the availability of broad band technologies and cheap smartphones (from China), a lot of ordinary people could use cellphone technologies. In some cases technical infrastructure was supported by the donor society.

Kenya has a long experience in implementing innovative information and communication technologies. Kenya’s Internet-payment system MPESA

found worldwide recognition (Economist 2. 6. 2010) and was copied by different countries such as South Africa and Ghana. Also in many OECD countries international companies such as Google rely on these Kenyan country-wide tests of e-payment.

There are different policies to bridge the digital divide. Multipurpose community centres, Telecentres, Cyberlabs, Public information terminals in post offices, and internet access points in libraries are strategies to allow people to use the Internet. Some of the developing countries such as South Africa are focusing more on mobile technology and less on personal computer access. Developing countries are using a different strategy to leapfrog the OECD countries. Some countries, such as Rwanda, concentrate their development strategy on a broadband technology network as a major step toward development of the country. The bridging of the gap is an important strategy especially for developing countries. In a number of countries such as India etc. the new information and communication technologies seem to assist the development of key strategic sectors. As a result of numerous projects, ordinary citizens also gain access to the Internet.

In OECD countries such as Germany, which has an average Internet penetration compared to other OECD countries, three quarters of the population use the Internet regularly. The broadband Atlas in 2011 shows that 98.7% of German households have Internet access to network with a transfer rate of 1 Mbit or more per second (Initiative D21: 2011). However, in Eastern Germany and in the rural areas (88%), Internet access is below average. Nevertheless, when it comes to social media, broadband and high-speed Internet technologies are relevant. Around 40% are using the new VDS of technology with a download speed of 50 Mbit. 69% have access to 16 Mbit connections, and 85% to at least 6 Mbit- connections per second (Roleff 2012).

Electronic democracy will come up against the problem of user proficiency, and this might lead to a 'digital divide' in voting. ICT is not distributed equally, nor are citizens from various socio-ethnic and socio-demographic backgrounds equally likely to be able and willing to use the technology (e.g. Pratchett 2002). Widespread electronic participation can thus lead to some voters having far more difficulty in voting than others, and even to the stigmatisation of citizens as either being luddites or lacking the technical means or skills to participate electronically (Pratchett 2002).

1.3.3 The digital individual. Young, urban, politically apathetic?

The digital divide is probably the most crucial issue. Is the divide likely to persist, and perhaps even to widen? Or will the gap be reduced as ICT equipment becomes more and more available? This is not only a question of

the further spread of technology and a reduction in the price of the equipment, but also a question of making the technology really user-friendly. But even in this case, there are people who decide to opt out, for instance, because ICT does not benefit them. It is also a question of public policies, regulations, and efforts with regard to the training of users.

The younger generation is strongly oriented towards new media consumption patterns. This screen culture is oriented towards new media, and the use of TV, cellphones and tablets. It is characterised by a strong multitasking ability as well as permanent accessibility. Here there seems to be a difference between the different generations. This elder generation ask for minutes of meetings etc. and the younger citizens are highly interested in voting online for projects, rating etc.

The *90-9-1 rule* says that 90% of the online audience only passively participate, 9% interact only occasionally and only 1% take part actively. This is typical for social media such as YouTube (Bleicher 2010: 83). In 2011 in some OECD countries such as Germany, around 70% of the group between 15 and 60 and only 40% of the 60+ generation used the Internet. Nearly the whole age group between 14 and 30 were online. In 1997 6.5% of the Germans were using the Internet. The typical first mover and Internet pioneer was between 20 and 40 years of age, employed and highly educated, and used the Internet for economic purposes and less for entertainment. Then in 2000 66% of the users over the age of 40 were online and they mostly used the Internet for entertainment purposes and communication. On the other hand the older generation was becoming a more important Internet user. The so-called “Silver surfer” got a tremendous push by new technologies and easier tablet computers. In 2010 women generally spent less time surfing and downloading but devoted more time to chats and information pages, culture and leisure. In all groups trends towards habitualisation and the use of only a few websites became obvious. Men were more active than women. Men produced more content and they uploaded more videos (on YouTube portals) participated in more blogs, and commented on more articles on the Internet (Pinz/Kersting 2012).

When it comes to certain instruments in 2010, Wikipedia was used by 70% of all users, video portals such as YouTube by 58%, and social networks by 42%. Weblogs were only used by 7% and Twitter by only 3% of the users. Meanwhile, only 10% of the 60+ generation used social networks, whereas around 70% of the age group between 14 and 29 used them. When it came to interactivity within the Social Web, only a few in the communities used it actively. Content is produced here by only 10%. Only 8% were active in weblogs and only 7% in Video portals. Twitter was used by two thirds of the users passively. Meanwhile, 35% of the users said that they were interested in becoming active (Pinz/Kersting 2012).

Social media bridges the gap between mass media (one-to-many) and personal media (one-to-one). In 2012 around 800 million Facebook users

were counted worldwide. 3.8%, or 30 million users, live in North Africa and the Middle East. The Internet is used for mobilisation, organisation, and expression. It can maximise speed of communication, shrink costs, and bridge distances. It is important for the process of democratisation and for liberation movements against authoritarian regimes (Norris 2000: 172). Although its role in the Arab Spring is often exaggerated, it influenced the spread of information, the networking and the engagement of the opposition movements against authoritarian regimes.

In the United States, in election campaigns it can be shown that the Internet plays an important role, especially for partisan supporters. Nevertheless, research in this field is still limited. As early as 2003 the Internet was an important source of information for Howard Dean. Political parties use Facebook as the most important instrument for obtaining information. Sweetser and Terisky (2008) argue that in the American mid-term elections, many partisans produced small and supporting messages. In Germany in 2010 only 22% of the members of the national Parliament used Facebook for political campaigning.

Classical channels of information such as newspapers and television still dominate the social elites, and the early adopters among these elites such as students. On the other hand early adopters have tried to gain contact with political parties and NGOs by using the Internet (Pinz/Kersting 2012).

There is a discussion about whether the Internet, because of lower costs, can mobilise people more easily and can help to build up social networks. Margolies and Resnick (2000) argue that the Internet is used by political activists only. Norris also argues that the Internet mobilises people who are already active. Some authors predict new forms of political participation, where people will actually participate in a fluid and flexible way, signing online petitions, becoming partisans etc. without strong partisanship (Coleman/Blumler 2009).

Internet users are stigmatized as shoppers, chatters, gamblers, information junkies, PC freaks, and technical geeks. They split into entertainment-oriented and business-oriented users. Some user built up their own identity (*avatar*). The Internet is used for construction of a new identity, where this second, virtual life in cyberspace can become relevant (Bleicher 2010: 83).

1.3.4 Internet ethics and human rights, dilemmas and trade offs

In the following section some other social and political issues will be discussed. These include ethical problems regarding the new information technologies. But there are also dilemmas and contradictory trends arising from these empirical results. These aspects can only be analysed and presented briefly. But these are also possible research fields for the future. Some are tradeoffs between the different goals and targets involved.

– *Memory for institutions. Remember and forget*

The World Wide Web was developed as a memory aid for an organization, and developed later as a memory for an organization. The Internet was developed to help the organisation to find and retrieve information easily. The hierarchical hypertext structure allows enhanced specific search functions. The function as a memory and a data bank for an organisation or society was enhanced by search engines such as Google, which relies on the Internet.

Web 1.0 focused on information and less on communication or participation. The Internet also allows a “many-to-many” communication flow. Information spread rapidly in the networks (virality). This virality causes certain risks. Once published, information on the Internet cannot be withdrawn easily. So the Internet seems to remember everything and it seems never to forget (see OII 2011). The psychological effects of this possibility of retrieving information everywhere at any time by a mobile cell phone have not yet been researched adequately.

– *Data protection and privacy*

Numerous groups have championed the idea of open access to all data. The discussion about information was already reflected in the book “Orwell in Athens” (van Donk et al. 1995). “Where you are not paying for the product you become the product” shows that participants in different projects are used as informants for big companies about consumption patterns. The big companies use data mining and other instruments to collect personalised information about consumption patterns etc. The knowledge of Google, Facebook and other companies is not transparent, open and democratised and can easily be misused. Data protection is a customer right underlying national legislation. In Europe Facebook is based in Ireland and has to respect European regulations on data protection, privacy and security.

European regulations were sometimes not effective when it came to the Cookie-legislation. This Cookie-legislation asks for information and transformation and the compliance of the user when it comes to cookies, which are files which are stored on a user’s computer that identify a PC to a Web server. Because these cookies are used in abundance, users resisted giving their personal acceptance each and every time. For this reason, this law was not ratified in a number of European states.

– *Freedom of Information*

Authoritarian governments react to criticism by using censorship and propaganda. These instruments are less effective because of the existence of an abundance of public space and information, where the government’s narrative can be proved untrue. According to Zuckerman’s theory, broad networks are much more difficult to control by authoritarian regimes. Government has to shut down millions of them to block all the views. The Internet is a flexible medium with rapid developments, innovations and changes. The Internet is a

global medium that cannot be fully controlled by national governments. Nevertheless, the placement of the server is relevant when it comes to litigation.

Since 2010 authoritarian regimes have tried increasingly to control the use of the Internet. In Belorussia, installing websites which were not registered in the country was not allowed. Google and eBay were not allowed and only local websites could be used for economic purposes. In Iran in 2011, every user had to identify when he entered an Internet café. In China this regulation existed as well and was even extended. Since 2012 registration within the Internet became obligatory. Anonymity is an important aspect when it comes to the anti-authoritarian usage of the Internet.

New regulations similar to the regulations in China and Iran can only be useful with identification of the IP address. Because of flexible and dynamic IP addresses, it has to be proved who used which IP address, and at what time. In this regard the storage of important data, which was the subject of other European Union legislation, became an important aspect for the European Internet as well.

– *Copyrights and fair use*

When file-sharing programs became prominent, companies, especially music companies, started complaining. Anonymity allowed users to abuse copyright for music and software. Some countries such as France reacted by enacting a copyright law in 2009 according to which Internet users breaking the copyright legislation three times were punished with a denial of Internet access. In the UK the Digital Economy Act was amended in 2010 and the “three strikes” rule, which had been previously adopted, was dropped.

In 2012 the planned ratification of the Anti-Counterfeiting Trade Agreement (ACTA) by the European Union member states triggered numerous protests which led to a number of governments sending this regulation back for discussion. ACTA is also relevant when it comes to the blocking of Internet providers who have broken the copyright law. The international pressure on governments to support stronger regulations is obvious. A number of countries are seen as “safe harbours”, others are not (Zittrain 2008; Stöcker 2012). In the US the discussed “*Stop Online Piracy Act*” (*SOPA*), the “*Sinde*” regulations in Spain, *Digital Economy Act* in the UK, *HADOPI* in France, and other regulations in most OECD countries should disallow the Internet corporations’ contact with certain websites which have broken the copyright regulations. Big Internet companies such as Google, Facebook, Yahoo, as well as Wikipedia argue that these rules introduce censorship and state surveillance.

– *Manipulation and cyber war. Netiquette*

Ethics are becoming more important in the Internet. The World Wide Web (www) is seen as a memory organization. But it can be manipulated. This manipulation can be organized by hackers, as in the case of Russian hackers trying to hinder and block the Estonian election.

Social media is firstly an arena for participation and an exchange of ideas. In this regard political organizations such as political parties should not manipulate this freedom of exchange. Using anonymous participants to influence the discussion or using political “spies” or “moles”? for negative campaigning in the opposing party blocks is easily done. But this will destroy the credibility and the legitimacy of the Internet, as well as all political parties.

Studies of the deliberative quality of the Internet have shown that webforums are not operating according to Habermas’ criteria, are not argumentatively -respectful, consensus-oriented, but are often pure monologues and frequently aggressive (Kersting 2005).

Because of the manipulation of information within the Internet, the wisdom of the crowd cannot always correct this manipulation in time. Users create and use information. Collective truth becomes individual truth and vice versa (Römmle in this volume). Can *Netiquette*, political correct behaviour in the Internet, be introduced and controlled by self-regulation? Individual freedoms on the Internet are frequently disrespectful of minority rights. *Shit storms*, where individuals are criticised massively on the Internet using Twitter, are used to silence and intimidate oppositional thinking. Is there a chance for self regulation reinforcing netiquette or is there a need for an Internet police?

– *Citizen journalism and responsibility: a guardian for the guardian?*

The shift to peer production is enhanced by the network ability of the social media, the producer and the consumer role, when equal individuals voluntarily produce the shared outcome (Bruns 2009). These producers are no longer passive consumers but bring in their own ideas and creativity and opinions.

This becomes highly visible in the field of journalism and broadcasting, where producers and users are becoming more and more equal in a network of information, and where citizen journalism is on the rise.

Social networks such as Facebook are creating content and are empowering professional journalists, who are using the social networks in their own blogs to benefit from the phenomenon of virality. Virality is a process in which incident information is shared rapidly and crosses the boundaries of new and traditional media.

In 2012 it is estimated that there are 115 million blogs worldwide. Here citizen journalists are no longer simple active consumers of information. This produces a broad spectrum of political information but also much political propaganda. It can be shown that some political blogs are related to right wing nationalism and xenophobia. There, more sensational topics dominate other more altruistic initiatives (Mozorow 2010).

Journalism has always played the role of a gatekeeper and a guardian. Journalists as guardians of political systems have certain obligations. The standards and the quality of journalism may have changed because of professionalization and even more because of commercialisation of the media, but

journalists are still responsible for the standards, the reliability, and truth of the information they produce. They filter what is interesting and what is not. They decide about the agenda, agenda setting, agenda surfing and agenda cutting. Here they are dependent on the publishers' marketing strategies. With the new channels of information, some can even enhance their role. Some can publish their stories which were not included in the main media, by using their blogs on the Internet.

In the meantime norms and rules for behaviour within the Internet have been introduced, but as in real life, not everybody sticks to these norms. Do we need guardians for the guardians?

– *Self selection- group think and identity*

Stromer Galley (2003) argues that participants look for social diversity and heterogeneity. Chadwick (2010) argues that the richness and the relevance of the new data is benefiting knowledge and skills and supporting off-line participation (Wojcik in this volume). New studies show that ideological segregation (Grentkow/ Shapiro 2010) is strong. Citizens are more interested in peer websites and mini spheres than in contradicting viewpoints. Different opinions are rejected and the reality they seek in the web supports their own position. The plurality of the media which was always a criterion for its quality is diminished. Especially in 2010 release search engines directed users to blogs with a similar vocabulary, the same style of writing in formulating questions and the same blogs and websites.

Markus Prior (2007) argues that the new digital media contribute to higher civic apathy. Due to the fragmentation and balkanization of the media, people are no longer limited to the leading media (TV), but can select for themselves and filter information according to their interests. Here users are avoiding conflicts and contradictory interests.

The segregated, separated and fragmented public sphere becomes an information bubble (Schmidt 2012). The introverted milieus and public spheres define homogeneous networks, where criticism and confronting arguments are diminished. Traditional media such as television channels and newspapers often had oligopolistic or even monopolistic characteristics, but they covered heterogeneous groups and produced networks, confrontation, and protest. Because of self-selection within the small homogeneous networks on the other hand, participants exchange fewer opinions (Römmele in this volume). The discourse in the different subgroups and in the fragmented public spheres within the Internet is often seen as an introverted political discourse. With the self-selection of the Internet group individuals can choose their own preferences and it is often argued that they mostly choose "friendly" forums to avoid cognitive dissonance. This can produce a phenomenon of groupthink where people avoid taboos and where those looking for consensus do not criticise and question each other's arguments (Römmele in this volume).

1.4 Conclusions and future trends

The future of the Internet and the future of electronic democracy are hardly predictable. New technological developments and new inventions can strongly influence our ordinary lives and become part of our lifestyle. During the last three decades, it has been seen that the penetration of the Internet has changed not only the lives of minority elites, but also of poorer groups within our society. Therefore we can speculate about future trends and developments in electronic democracy.

The Internet has produced an enhanced political transparency. There is a need for political information, but compared to other activities in the internet people only a few seem to be interested in politics. Only a few groups log into political information and political topics. The potential of the Internet still lies largely in unorganised non-elites being able to produce a counter public sphere.

Democratic systems, especially the older democracies, are characterised by a strong past reluctance toward democratic innovation. In some countries democratic institutions are seen as the glue which holds the country together and which produces identity. Trust in these institutions seems to be a relevant factor for the survival of the democracy and the political system. Even outdated procedures which stem from a past which had no modern form of transportation and communication have survived. There are numerous examples of these relics (e.g. the US electoral college). This can be seen as a kind of ritualised institutional setting but they give the political system identity. So it is easy to predict that democratic innovations will have to include elements from the old system to become accepted. This can be seen for example in the development of Internet voting, where trust in the basic real counting system led to a development on which even voting machines had to produce a paper trail and had to print out a ballot paper which could be counted by real citizens afterwards. In the field of internet innovation, it is obvious that higher standards were introduced because of distrust and techno-scepticism.

In the following section the main future trends will be presented. Some have already been partly implemented:

– *Blended participation: online-offline, real-virtual*

Strong path dependency and conservatism are also a factor when it comes to the important nexus between online and offline participation. Blended democracy describes the interaction between online and offline participation and online and electronic democracy. The proliferation of the Internet and the new instruments for electronic democracy will not lead to a fully virtual political life in the Internet (sometimes labeled as pure cyberdemocracy). Most of the electronic democracy instruments will be based on or will head towards offline participation in the real world. Although it can be shown that traditional media are losing influence, they are always used as a source of in-

formation and a kind of marketing place for online media. As we have seen, the Internet world is deeply fragmented. Here the use of traditional media (TV, radio, newspaper) can be very useful for informing and marketing of online websites and to enhance online participation. On the other hand virtual online media are heading towards real offline participation. One example here is the use of “Flash mobs”, where mobilisation is organised via the Internet. Flash mobs are gatherings coordinated and mobilised in secret by text messages.

– *Direct, dialogical and representative democracy. Hybrid and Liquid democracy*

In recent decades democratic innovation and reformed political systems showed a trend towards hybrid forms of participation. This can be seen in the development of governance as a worldwide trend. Elected politicians and old political elites are no longer seen as the sole legitimate representatives. It is accepted that administration as well as formerly ignored and blocked interests from the civil society are included as partners in a kind of roundtable democracy. The nexus between dialogical and representative democracy can be seen as an important element of governance. Nearly all definitions seem to include a type of public-private partnership.

There is also trend towards more direct intervention in the case of specific issues. Dissatisfaction with representative democracy in different countries in Latin America, Africa, and especially Europe has led to new forms of referendums and especially initiatives from below. People want to have a say not only in electing representatives for the next four or five years, but they want to intervene directly in the policy making process.

Liquid democracy is an online software for democratic decision making which is going in a similar direction. It is a form of hybrid instrument using representative and direct democracy. It allows people to choose in which cases they want to have a representative (trustee or delegate) and in which cases they want to decide on their own. According to the concept of liquid democracy, citizens are able to withdraw powers from the representatives in certain fields in order to decide directly, so there are delegates for an undefined time and for certain topics. These new forms seem to fit better into the demand for political participation by the citizen. It is interesting that the Pirates Party in Germany is using this form of participation for inner party democracy. The withdrawal of the delegation aspect puts enormous pressure on the delegate to focus on his/her own constituency. At this point there will not be a discussion on whether this is leading to a strong form of populism. But it will be argued that the demand for more participation will definitely focus on stronger inner party democracy as well as more direct intervention in decision-making.

– *Open E-innovation*

Open innovation is becoming an important development in economics as well as in the political system. The old Fordist mode of production was based on large-scale industries (Abbott in this volume). Here the consumers had little choice. They were part of the passive mass consumption model convinced by large-scale marketing strategies. In the subsequent models the influence of consumer choice and preferences increased. In the model that followed more and more “pro-sumption” and open innovation are likely to become important (Abbot in this volume).

The demand for openness of the political system will lead to new forms of open innovation. This can already be seen in new instruments collecting the ideas and suggestions of the people within open government, participatory budgeting, neighbourhood committees etc. New Internet technologies and mobile phones with geo-location systems will provide an opportunity for a comprehensive multi-spatial suggestion box. Empowered with augmented reality information, people will give their advice and their ideas regarding numerous problems and issues in their neighbourhoods. Suggestions made by citizen and related to different issues and problems will enhance the knowledge of public administration and politicians. Online suggestion boxes (see e.g. *fix my street* in the UK) give permanent information about the problems and the demands of the citizen. This process of open innovation by the people can be scrutinized by other citizens. In online polls citizen can vote in favour or against these suggestions.

In modern societies knowledge is becoming the main trigger for economic and social development. Knowledge is democratized by internet access and in principle all sources of information are available to everybody. This has led to segregation of traditional authorities such as journalists, politicians and scientists; meanwhile the wisdom of the crowd becomes important (Surowiecki 2004). The common sense reflections of the Internet become the new model relating decision-making to the wisdom of the crowd and to the needs and demands of people.

Transparency becomes an important aspect. The knowledge gap between political representatives, journalists and the citizen decreases, because some of the audience knows more about the subject than some politicians or journalists. Crowd sourcing can generate target group-specific innovation.

Open innovation includes a stronger focus on user profiles of customers and knowledge of their consumption patterns. We discussed the problems of piracy and data protection. Social media can be used and abused by governments, traditional lobby groups and corporations. It is used to try new ways of working together.

Barack Obama’s transparency and open government programme is part of the open data movement led by governments mobilising digital networks and including the know-how of the citizen in their policies. Similar to Wikipedia, a multitude of initiatives use the wisdom of the crowd and the collabo-

ration of the citizen. Countries such as Spain, Denmark, Norway, and United Kingdom, as well as supranational institutions such as the European Union have followed these examples and opened their data bases to allow citizens to analyse the data.

The new information has developed new roles for lay citizens. It seems to disguise the difference between political elites and ordinary citizens. The formerly traditional gatekeepers, the media, strongly collaborated with the new data journalists. Political parties are losing control of their political campaigns, but also ordinary media are losing influence (Wojcik in this volume).

Coleman and Blumler (2009) argue that direct representation based on paternalism will stop. Politicians will have to act under permanent scrutiny and subject to the exercise of accountability. The idea of counter-democracy, where a critical public opposes mainstream media as a means of control and as an instrument for mobilisation will grow. This counter-public (Nancy Fraser) is obvious, and will impact the development of different mini-public spheres.

– *Multifunctional web*

There is a strong focus on hybrid systems connecting online and off-line participation focusing on pure Internet instruments. The trend is towards the amalgamation of different functions in a post-personal computer era. New instruments include not only information and communication functions, but also participation in the form of symbolic demonstration, polling, and voting on mobile devices. This combination of information, communication and participation can be seen in applications such as Facebook's "like button", where user can rate and vote for items, ideas etc, and e-polls in other social networks. The number of instant polls related to different forms of information on political issues and candidates will increase.

For political parties and for government, this kind of information is also important for the development of new policies. Similar to what is done in private companies, user-profiles can be developed and policies can be better targeted towards certain groups. With new data-mining processes, this information can enhance the policy making process.

The Internet allows tailor-made targeted messages and it also allows virality and broad outreach among stakeholders, where the sender and recipient can interact.

There will be amalgamation of online and offline worlds. Hartzog points out that in the future the distinction between off-line and online will become obsolete. The disappearance of the computer shows that the new technology is a sustainable innovation. "The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it." (Weiser 1991: 94-104). But as a qualification of democracy, the new online technologies will have to include offline, "face-to-face" democracy. The future of democracy will not be positioned in

a pure online cyber-democracy, but in a blended democracy combining the best of the two worlds.

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2. Political mobilization and social networks. The example of the Arab spring

Pippa Norris

The Arab uprisings rocked the foundations of deeply-entrenched autocracies in many Arab states, generating after-shocks rippling out as far as Beijing and Moscow. In Tunisia, President Ben Ali fled to Saudi Arabia, replaced by an elected coalition government of the Islamist Ennahda and the left-wing Ettakatol parties. The Egyptian uprisings led to the Muslim Brotherhood's Freedom and Justice Party (FJP) victory in parliament, although government power remains with the military. In Yemen, President Ali Abdallah Saleh has agreed to stand down and the regime transition continues to unfold. Libya saw bloody civil war, the death of Gaddafi, and governance by the interim National Transitional Council. Seeking to prevent similar events in Bahrain, Sheikh Hamad bin Isa Al Khalifah unleashed Saudi security forces to repress Shia unrest. In Syria, President Bashar al-Assad used even greater brutality, deploying mortar shells against civilians. For decades, authoritarian regimes in the Arab world had seemed immune from change, apparently impervious to the third wave of democratization sweeping the rest of the world, and untouched by the color revolutions in Eastern Europe. Scholars had previously sought to explain the puzzle of the robustness of authoritarianism in the Middle East (Bellin 2004, Diamond 2010). The Arab uprisings therefore caught most seasoned observers by surprise, generating widespread speculation about their causes.

In seeking to explain these events, numerous commentators have emphasized the role of information and communications technologies. The expansion of access to social media platforms such as Facebook, MySpace, Twitter, and YouTube is widely believed to have facilitated contentious politics in the region, with the capacity to undermine autocratic control of the airwaves and the streets. This claim gains plausibility from the way that the Middle East has experienced a massive wave of technological change since Al Jazeera launched in 1996, with access to satellite television, mobile cellular telephones, and social media platforms spreading faster than an oil slick in the Gulf. Although highly visible, especially to Western commentators, the impact of social media may have been exaggerated compared with many other deep-rooted causes of contentious politics and popular uprisings.

To examine these issues, part one establishes the theoretical framework. This chapter theorizes that social media could potentially have four functions for mass uprisings: *informational* (spreading knowledge, awareness, and news), *networking* (coordinating collective actions and organizing movements), *cultural* (strengthening democratic aspirations and critical evaluations of regime performance) and *behavioral* (reinforcing the propensity for citizens to engage in protest acts challenging the regime). Part two outlines the survey evidence used to analyze the impact of social media in several diverse states in the Arab region. Data is drawn from representative surveys conducted by Zogby Research Services in September 2011, the Pew Global Attitudes Project surveys in spring 2010 and spring 2011, as well as the 2005-8 wave of the World Values Survey (WVS). Part III examines this evidence to determine the functions of social media for information, networking, cultural values, and protest politics. The conclusion summarizes the key results and considers their implications.

2.1 Theories about the impact of social media

Social media are understood and conceptualized here as those online technologies which allow individual citizens to communicate interactively with diverse networks, thereby bridging the functions of mass media, designed for a large-scale audience, and personal media, designed for one-to-one communications. The most popular social networking *platforms* are exemplified by the global brands of Facebook, Twitter, and YouTube sites, and local equivalents, such as Koor.com, Yallakora.net, and Myegy.com. These reflect the public face of social media. Information and news is also spread through social media *channels* even more widely and in a less structured fashion by a mélange of online blogs, websites, crowdsourcing, photo sharing and text messaging, transmitted through mobile cellular phones, laptops, netbooks, and tablet devices, and feeding into the aggregating platforms. The term ‘social media’ is used here to include the use of both online platforms and channels. They supplement and bridge the use of *personal* media, exemplified by one-to-one conversations by telephone, individual text messages to family and friends, and face-to-face interactions, and also *mass* media, including traditional one-to-many mediums such as newspapers and broadcast television and radio. Before the rise of social media, even though there could always be some overlap (such as letters to newspapers, radio call-in programs, or water-cooler discussion of TV), it was usually easier for analysts to distinguish the original source, the primary channel of communications, and the recipients of information flows. In the contemporary communication environment, however, interactive multiplatform generate a mélange where information flows back and forth in multiple directions and traditional bounda-

ries overlap and dissolve; for example, newspapers publish live blogs and readers' comments, YouTube phone video appears on the BBC World News, tweets provide live news ticker-feeds for niche topics, and friends share comments and links to mainstream media sources and blogs through Facebook networks. New 'Big Data' mining techniques are still evolving to make sense of the plethora of digital messages, tweets, uploaded videos and blogs in online social communications.

The role of social media in the Arab uprisings can be unraveled by disentangling a series of steps in the communication process, namely, to paraphrase Harold Lasswell (1936), who (the communicator), said what (the message), through what channels (the medium), to whom (the receiver), and (in particular) with what type of effects (impacts). The extensive literature on civic engagement, political communications, and contentious politics in Western societies has distinguished several different types of potential effects arising from media (Earl et al. 2010). Drawing upon this literature, this study conceptualizes and distinguishes four separate functions which social media could have played in the Arab uprisings:

- *Informational*, where social media function as a source of news about contemporary events occurring within and outside of each society;
- *Networking*, where social media are used to reduce the transaction costs of coordinating collective action;
- *Cultural*, where social media have the capacity to reinforce democratic aspirations and also public disaffection with regime performance; and lastly,
- *Behavioral*, by strengthening the propensity to engage in protest activism.

These functions overlap but they should be treated as analytically distinct; for example, people using YouTube and Facebook can learn about events in Egypt and Syria, but this awareness may have little impact upon their willingness to engage in risky demonstrations. Similarly dissident leaders can deploy text-messages, tweets and Facebook posts to coordinate strategies and organize activities among activist elites, without necessarily managing to mobilize the general public.

Null hypothesis

At the same time, a more cautious or skeptical perspective suggests that contemporary commentators in Western societies may have exaggerated the cultural impact of social media on the Arab uprisings. Anderson (2011) cautions that far from a single cause, despite some superficial similarities, the complex series of events and outcomes of the uprisings differed in Tunisia, Egypt, and Libya, defying a common explanation. The reaction of regimes to popular unrest, including the use of concession and repression, also differs sharply in

each of these countries, as well as among the Gulf States. Similarly, Totten (2012) regards the upheavals in Tunisia, Egypt, Libya and Syria as concurrent but distinct phenomena, despite attempts to see commonalities. News of Tunisia's success in rapidly ousting President Zine El Abidine Ben Ali in January 2011 cascaded rapidly to other peoples in the region with shared grievances, providing inspiration for domestic movements. Nevertheless the outcomes elsewhere failed to follow the Tunisian model, generating prolonged instability in Egypt, the long civil war and post-conflict chaos in Libya, and outright bloody repression in Syria. From this perspective, mass protests have been triggered by diverse structural causes within each society; Mubarak's downfall can be attributed to schisms, defections, and in-fighting among leaders within the Egyptian ruling elite. Gaddafi's grip over Libya may have been weakened by deep-rooted tribal grievances, with the rebellion aided by the military and diplomatic interventions of the international community. The subsequent repression of popular uprisings in Syria and Bahrain could be explained by snowball contagion effect, and the weaker role of the international community, as regimes quickly learnt the lessons of the Tunisian revolution and responded with mortar rockets and guns.

In Western societies, the research literature has conventionally explained engagement in protest politics by individual resources (such as cognitive skills) and motivational attitudes (such as feelings of external efficacy) which encourage individuals to engage in demonstrations, along with the contextual structure of opportunities, such as political institutions (Norris 2002, Norris/Walgrave/Van Aelst 2004, Dalton 2004). In addition the extensive literature analyzing the general drivers of civil unrest and internal conflict elsewhere in the world, notably research at the World Bank by Collier and Sambanis (2005), also suggests that a wide range of complex underlying factors, including 'greed' and 'grievance', usually contribute towards popular uprisings and civil wars. Prime suspects which may have contributed towards the Arab uprisings include, amongst others, grievances arising from long-standing economic problems, unemployment and the 'youth' bulge, the effects of the 'resource curse' on state-capture and rentier behavior in mineral-rich states, the role of international pressures and also regional diffusion effects, the gradual spread of democratic cultural values during the third wave era, public disgust about kickback, patronage, and nepotism in the public sector, and divisions among factions within the security forces and ruling elites (for a discussion, see Bellin 2012). Poor economic performance, in particular, is widely believed to fuel a popular sense of grievance among those who suffer in any society. The combination of low rates of income growth, youth unemployment, and enduring poverty common in many Arab states is believed to foster popular discontent against the governing regime. Rapid economic change (positive or negative) is expected to intensify group competition for scarce resources, leading groups to support rebellion (Newman 1991, Hewitt/Wilkenfeld/Gurr 2011). From the more skeptical perspective, therefore social

media may function to sustain and facilitate collective action, but this is only one channel of communications amongst many, and processes of political communications cannot be regarded as a fundamental driver of unrest compared with many other structural factors, such as corruption, hardship, and repression.

2.2 Evidence and research design

Communication studies analyzing the contents and effects of traditional mass media and social media reply upon the standard tools of case-studies, content analysis of sources, social surveys of users, and quasi-experimental research designs. Case studies have been employed to describe unfolding events in each country, and the way that mainstream and social media covered these events. It is more difficult to establish systematic comparative evidence which content analyzes social media during each of the Arab uprisings, given the multiple platforms and channels used in a fragmented media environment. Nevertheless studies have started to document these issues, such as the daily volume of Tweets, Facebook postings, YouTube videos, and other online social media coverage presenting information about the uprisings in Tunisia, Egypt and Libya (Howard/Hussain 2011, Lotan et al. 2011, Salem/Mourtada 2011). Previous research has also examined surveys monitoring levels of access and use of social media in several Middle Eastern states (Salem/Mourtada 2011, Zogby 2011). Case-studies of the Egyptian and Tunisian revolutions have described how news spread rapidly through social media networks, informing local people directly about events, as well as cascading through myriad mainstream news media to audiences around the world (Salem/Mourtada 2011, Wolman 2012).

Representative social surveys which monitored social and political attitudes across countries, as well as patterns of mainstream and social media use, were once scarce in the region. Fortunately survey data has become more easily available during the last decade, due to the efforts of the Arab-Barometer, the Gallup World Poll, the WVS, the Pew Global Attitudes Project, and related research initiatives. No single survey provides all the information needed for analysis, however, so this study combines three sources. This includes representative surveys conducted by Zogby Research Services in six Middle Eastern countries (Tunisia, Egypt, Lebanon, Jordan, Saudi Arabia, UAE and Iran), with fieldwork in November 2011 among 4,100 respondents. The Zogby survey monitored Internet penetration and use of both social and mass media (Zogby 2011). This study also analyzes the Pew Research Center Global Attitudes Project, an annual survey from 2002-2011 which also monitors the use of digital communications in 22 nations, including in Turkey, Egypt, Lebanon and Jordan. Fieldwork was conducted by Pew

during spring 2010, prior to the start of the Arab uprisings, and again in spring 2011. Trends over time during the last decade can also be examined by drawing upon the annual series of Pew surveys conducted from 2002 until early 2011. Lastly to analyze cultural and behavioral effects associated with use of the Internet in many countries worldwide, this study draws upon the 2005-7 fifth wave of the WVS, covering around sixty nations worldwide, including in Iran, Iraq, Morocco and Turkey. Analysis needs to control for a number of micro-level and macro-level characteristics; it is well-established that Internet users often differ in their social characteristics and demographic background, usually proving younger, more educated and more affluent than the general population. Newspaper readers also typically prove more educated and more affluent than the general population, while in middle-income countries, at least, television viewers generally provide a broader and more representative cross-section of society. Multivariate analysis therefore needs to control for these characteristics.

The analysis of Middle Eastern societies available through these surveys does not cover the whole region although the comparison does include countries which differ in their geographic locations, sectarian and religious divisions, levels of economic and human development, historical and colonial traditions, experience of autocracy and democratization, access to communication and information technologies, reservoirs of oil and mineral resources, and relations with the international community. Countries also differ in their contemporary types of regimes, including traditional absolute monarchies, one-man dictatorships, electoral democracies, theocracies, fragile states, and military-backed oligarchies. Comparisons of Internet activism in the WVS survey can also be made with a range of post-industrial and developing societies elsewhere.

2.3 The impact and role of social media

The impact and the role of social media is debated. As we have seen social media fulfill four different functions.

The information functions of social media

The influence of social media as one of the channels used by dissidents for the diffusion of information about events during the uprisings seems almost beyond dispute, and this is also the most straightforward and limited claim. Just as the American revolution helped to inspire radical insurrection in France, so breaking news, images and stories of the successful Tunisian revolution, overthrowing the 24 year long dictatorship of Zine al-Abidine Ben Ali in just one heady month, are believed to have inspired contagious optimism

about the potential for regime change in Arab countries sharing similar identities, histories and cultures (Howard 2011). Social media can be regarded as important for transmitting current information in all societies but especially in authoritarian states, such as in Syria (Odugbemi/Norris 2010), where the intelligence services tightly control traditional state-owned terrestrial television and radio broadcasting channels, as well as restricting content in many major newspapers through press regulation and the arrest of journalists critical of the regime. Social media can be expected to be less vital in societies such as Egypt, with a plurality of independent newspapers and more liberal journalistic culture, although even in this society serious threats to press freedom and attacks on journalists mean that social media can still be important as a way to bypass mainstream media. By publicizing news about repressive and corrupt state actions, social media can increase awareness and public disaffection within autocracies. Social media also feed eyewitness news updates to professional journalists, such as those working in Al Jazeera and BBC World Services, a process which then diffuses this information via the mainstream mass media in the international community.

Survey evidence has started to document the informational uses of social media in the Arab states. The rapid diffusion of access to social media across the region has been a remarkable phenomenon. The International Telecommunications Union (ITU) (2011), the main international agency responsible for monitoring telecommunications statistics, estimates that the world is home to 7 billion people, one third of whom are now using the Internet.

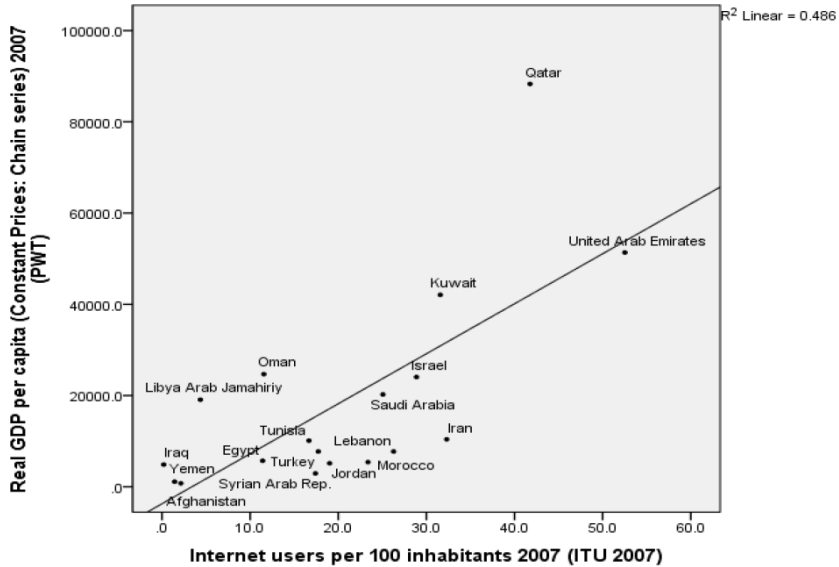
Over the last five years, developing countries have increased their share of the world's total number of Internet users from 44% in 2006 to 62% in 2011.¹ Nevertheless, as shown in Figure 1, internet access varies across the region, with the highest access in the rich states of Qatar, UAE and Kuwait, and more limited access in Libya, Iraq, Afghanistan and Yemen. In 2010, the ICT Development Index published by the International Telecommunications Union to take account of many dimensions of the information society ranked Qatar 44th highest worldwide, with Bahrain (45th) and Saudi Arabia (46th) close behind, while by contrast Tunisia ranked 84th, Egypt 91st, Syria 96th and Yemen ranked 127th.

Yet today social media are spread through mobile cell phones with text and video facilities, as much as through conventional computers and Internet connections. With 5.9 billion subscriptions, the ITU reports that global penetration of mobile-cellular reaches 87% of the world's population, and 79% in the developing world. In recent years social media have also spread worldwide like wildfire; the Spring 2011 Pew Global Attitudes Survey covering 21 countries estimated that 85% own a cell phone, and networking platforms are used by around one quarter of respondents, including by those living in Lebanon (20%), Egypt (28%), Turkey (29%) and Jordan (29%) (Pew Global Attitudes Project

1 ITU (2011): <http://www.itu.int/ITU-D/ict/facts/2011/material/ICTFactsFigures2011.pdf> (2012-14-02)

2011). Mobile phones are ubiquitous around the world and they are widely used for text messaging; the Pew survey estimated that among mobile phone owners, on average three-quarters use the device to text, one half take pictures or videos, while one quarter use their phone to go online. In Egypt, for example, Pew found that in 2010 71% owned a cell phone, of which 72% used the device to text, 58% to take photos or video, and 15% to go online.

Figure 1: Internet access and economic development in the Middle East and North Africa, 2007



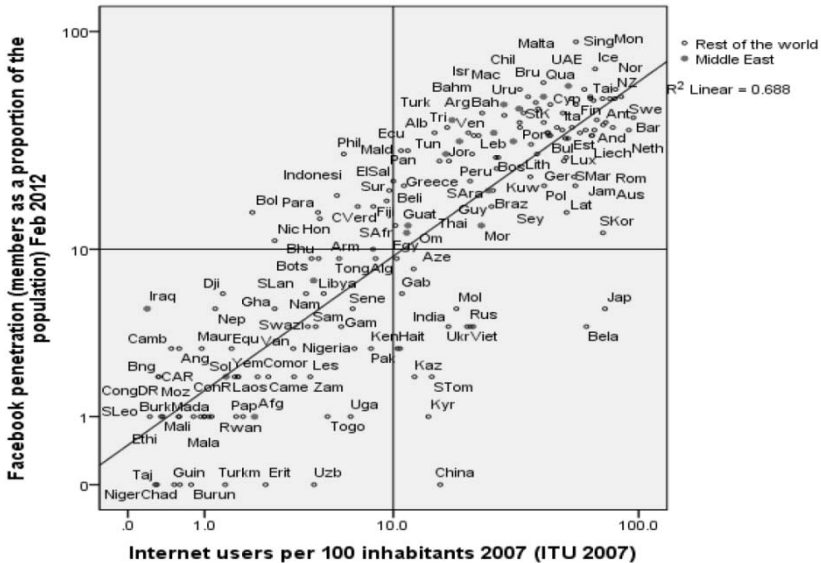
(Source: ITU; Penn World Tables).

Moreover Pew reports that use of social media networking sites such as Facebook increased by about 6-8% from spring 2010 to spring 2011 in Egypt, Jordan and Turkey. This pattern will probably continue to rise in future; young people and college graduates are particularly likely to use their cell phone for social networking, texting and taking photos or video. Nevertheless the penetration of specific platforms, such as Facebook and Twitter, shows considerable variations among countries in the region. Estimates suggest that by February 2012, out of 801 million Facebook users worldwide, around 30 million users lived in the Middle East and North Africa (3.8%).²

2 Socialbakers (2011). [http://www.socialbakers.com/facebook-statistics/?interval=last-week#chart-intervals\(2012-14-02\)](http://www.socialbakers.com/facebook-statistics/?interval=last-week#chart-intervals(2012-14-02)).

Yet average penetration of Facebook among countries in the region (calculated by the number of members as a proportion of the total population), varied from societies with high use (see Figure 2), led by United Arab Emirates (57%), Qatar (51%) and Bahrain (45%), down to those where Facebook users were a small minority, including Libya (7%), Iraq (5%) and Yemen (2%). Facebook users in both Tunisia (with 3 million users or 28% penetration) and Egypt (with almost one million users or 12% penetration) fall between these extremes. Comparisons worldwide in Figure 2 also illustrates a fairly strong correlation between Internet users and Facebook penetration, so that affluent post-industrial societies such as Singapore, Norway and Iceland have high usage of both, while the least developed societies such as Niger, Chad and Guinea are marginalized from online connections. Interestingly, most Middle Eastern societies are relatively high in both Internet connections and Facebook users, falling into the top-right quadrant of the scatter-gram. Thus if social media do change the political culture and propensity to protest, citizens in Qatar, Bahrain and UAE are some of the most connected around the globe.

Figure 2: Internet access and Facebook penetration, worldwide



(Source: ITU; Penn World Tables).

Even in societies where many people have access to social media, however, the impact of these channels should not be exaggerated; text messages on the cell phone in every pocket have historical roots in the radical pamphlets fuel-

ling the American and French revolutions, the printed posters, local newspapers, and mass petitions mobilizing English Chartists and working men's associations, and the samizdat leaflets, novels, poetry, and magazines circulating in the Soviet Union. Communications are vital for information and networking, but it would be false to claim that social media per se are *essential* for successful radical uprisings; analogies can be drawn between events occurring in Tunis, Cairo, and Tripoli during 2011 with their predecessors in post-communist revolutions in Prague, Budapest, and Warsaw a decade earlier, prior to the dawn of the mass Internet age (Way 2011). Communist regimes were toppled by opposition forces following the fall of the Berlin wall in 1989, but these events occurred prior to mass use of the Internet, which only became popular in the United States beyond elite circles following launch of Mosaic as the first graphical web browser in 1993 and Microsoft's Netscape Explorer the following year (Norris 2001). Some of the best known historical cases of 'people power' uprisings prior to the Internet age include those resulting in the Islamic revolution in Iran in 1979, mass demonstrations (especially organized by women and the Catholic Church) directed against General Pinochet's rule in Chile, outbreaks of 'people power' in the Philippines overthrowing President Ferdinand Marcos in 1986, the anti-apartheid struggles leading to its abolition and the 1993 democratic elections in South Africa, and demonstrations and counter-demonstrations in Iran (Bermeo 2003, Drache 2008, Roberts/Ash 2009). In Western societies, protest activism expanded in popularity during the 1960s and 1970, the golden age of broadcast TV, and mass engagement in peaceful demonstrations has continued to rise in subsequent decades (Norris 2002).

Table 1: General use of news sources

	Tunisia	Egypt	Lebanon	Jordan	Saudi Arabia	UAE	Iran
MASS MEDIA							
Satellite television networks	65	76	43	42	32	28	0
National or local television networks	20	41	85	62	58	56	53
Newspapers	13	14	13	27	33	48	57
ONLINE MEDIA							
Internet new sites	9	28	19	38	24	9	29
Social media sites such as Facebook, Twitter	62	23	9	3	10	15	3
PERSONAL COMMUNICATIONS							
Talking to friends and family	27	18	25	28	42	53	59

Note: Q "What are the two most important ways that you can follow news and information about events in your country? Choose two."

(Source: Zogby Research Services Surveys 12-29 September 2011 N.4,205).

Table 2: News sources used to follow the Arab uprisings

	Tunisia	Egypt	Lebanon	Jordan	Saudi Arabia	UAE	Iran
MASS MEDIA							
Satellite television networks	82	77	54	91	73	56	8
National or local television networks	0	39	72	23	18	15	51
Newspapers	16	16	14	10	20	31	50
ONLINE MEDIA							
Internet new sites	13	24	19	52	42	33	27
Social media sites such as Facebook, Twitter	56	26	12	6	13	20	21
PERSONAL COMMUNICATIONS							
Talking to friends and family	33	18	25	19	33	45	44

Note: Q “What are the two most important ways that you can follow news and information about events in your country? Choose two.”

(Source: Zogby Research Services Surveys 12-29 September 2011 N.4,205).

Moreover social media are not the only development in communications; the Middle East and North Africa (MENA) region has also experienced the spread of pan-Arab newspapers published simultaneously in several cities, and the growth of satellite television networks (particularly Al-Jazeera and Al-Arabiya). Cosmopolitan communications are thought to have broken down state control of information within national borders, opening Arab societies to pluralistic forms of political debate and more critical journalistic commentary, as well as fostering a stronger pan-Arab identity (Ghareeb 2000). Broadcast media have not been emphasized by many commentators but they may have played a more important informational role during the Arab uprisings than social media. In fall 2011, Zogby polls asked respondents in seven countries in the MENA about the media used to follow news of the Arab uprisings (Zogby 2011). In all societies which were compared, satellite television networks emerged as the most important source of general news, and news about the uprisings, including in Tunisia and Egypt (see Tables 1 and 2). Indeed across the seven MENA countries included in the survey, social media platforms such as Facebook and Twitter proved on average less important as a source of information in most societies compared with television, newspapers, Internet news sites, and talking with friends and family. The informational role of social media platforms during the Arab uprisings therefore needs to be understood as only one source within the context of many other interpersonal and mass communication channels, including face-to-face and telephone discussions with friends, family and neighbors, satellite TV and radio broadcasts, and print newspapers and online news websites.

The networking functions of social media

Social media can also play a networking and organizational function for leaders and elites engaged in organizing collective actions, linking messages among decentralized and scattered networks of dissenters, and facilitating street protests which sustained the popular Arab uprisings. As I predicted more than a decade ago now, and well before the launch of Facebook, YouTube and Twitter: “The characteristics of the Internet to shrink costs, maximize speed, broaden reach, and eradicate distance provide transnational advocacy networks with an effective tool for mobilization, organization and expression which can potentially maximize their leverage in the global arena ... Digital outlets can be particularly important under authoritarian regimes, where protest activities and the independent news media are severely constrained or silenced.” (Norris 2001: 172-173).

The rapid spread of mobile phones with text, photo and video facilities, combined with the easy availability of brand-name technological platforms, has facilitated rapid, low-cost interactive networking. For decentralized and scattered social movements, this has made the spread of information from social media more ubiquitous, fast, and more independent of state censorship and control than ever before. During the 1968 civil unrest and demonstrations outside the Chicago Democratic National Convention, for example, violent riots were broadcast to the rest of the world mainly through journalists working for CBS and NBC. Demonstrators chanted that ‘the whole world is watching’ but most Americans witnessed this was through the lens of network television. During the recent ‘Occupy’ movement, by contrast, every activist with a mobile cellular phone had become a potential eye-witness reporter of events. Howard (2011) quotes one Egyptian activist about why digital media proved so important to the organization of political unrest. “We use Facebook to schedule the protests, Twitter to coordinate, and YouTube to tell the world.” The potential consequences for protest activists engaged in collective action, mobilizing and organizing promises to be profound – especially in autocratic states which control and censor channels of mass broadcasting. Many commentators therefore suggest that social media accelerated contentious politics in the region, through information and networking, thereby helped to facilitate and sustain collective action among dissident mass movements, without social media functioning as a primary driver or long-term cause of the Arab uprisings (Howard 2011).

Thus a number of scholars have argued that social media played a critical role by networking scattered groups of protestors, facilitating collective action. This is a more demanding use of the social media than simply surveying news and information, as it involves an organizational component which aims at actions, for example announcing meeting places and times for rallies, demonstrations, and acts of civil disobedience, or coordinating tactical responses, such as recording and uploading mobile phone videos with images

of the regime crack-downs. The report by the *Project on Information Technology and Political Islam*, by Howard et al. (2011), argues that online media caused a cascade of civil disobedience to spread among populations living autocratic rule, as well as providing unique new means of civic organizing. Other observers about recent events in the Middle East have come to similar conclusions. The spread of social media, Bellin (2012) suggests, is a ‘game-changer’ which authoritarian regimes worldwide will need to heed in future if they seek to remain in power. Social media can promote the deliberate diffusion of ideas, especially sharing tactics and repertoires of civil disobedience through transnational networks of activists, as well as facilitating copycat protests imitating events elsewhere in the region and within each society. Lynch (2011) argues that dramatic changes in the information environment over the last decade have transformed individual competencies, especially expanding the ability for citizens to organize collective action, as well as facilitating the transmission of local information to the international stage. Commentators note that the ubiquity of cell phone video cameras and text messaging, combined with online social platforms and related secondary news websites, allow insurgents to coordinate their actions more rapidly and on a larger scale than before these tools existed (Shirky 2011). Analysis of Twitter and Facebook content by Howard and Hussain (2011) concluded “Social media played a central role in shaping political debates in the Arab Spring...[The evidence] suggests that social media carried a cascade of messages about freedom and democracy across North Africa and the Middle East, and helped raise expectations for the success of political uprising. People who shared interest in democracy built extensive social networks and organized political action. Social media became a critical part of the toolkit for greater freedom.” (see also Howard 2010, 2011, Lotan 2011). The networking function can be examined most thoroughly by case-studies documenting the use of online channels by parties, social movements and activists, as well as content analysis of Twitter feeds, Facebook posts, and the blogosphere (see, for example, Wolman 2012).

Table 3: Most popular uses of social media, Tunisia and Egypt

	Facebook users		Twitter users	
	Tunisia	Egypt	Tunisia	Egypt
Communication with family and friends	59	59	18	15
Meeting new people	33	35	15	17
Expressing my views	45	53	30	31
Getting news or information	62	57	44	32
Becoming involved in politics	20	33	22	18
Professional networking	21	26	25	22

(Source: Zogby Research Services Online Surveys, 13-15 September 2010, N. 1133).

To provide an idea about the general scope of these activities among the mass public, we can examine Zogby Research Services online surveys of the Internet population in Tunisia and Egypt, conducted during September 2010. Respondents were asked about their uses of Facebook and Twitter, including the range of functions illustrated in Table 3. The results show that among online users, the most popular function of these social media platforms is communicating with friends and family, expressing views, getting news and information, and meeting people. At the same time, roughly one fifth to one third of respondents in both countries found that social media platforms such as Facebook and Twitter were very helpful for becoming involved in politics. Similarly when asked about common activities, members of Facebook in Tunisia and Egypt emphasized that they ‘frequently’ communicated directly with friends (58%), read other people’s posts (53%), and posted information (36%). By contrast only 16% frequently used Facebook to connect with groups or organizations. There is a fine line between spreading awareness and networking activists, and social media seems to fulfill both functions among many online users, although in general the political uses of social media are less popular among users than the more purely social functions.³

The cultural function of social media

Did social media also have a distinct impact upon cultural values during the Arab uprisings? In particular, did exposure to social media strengthen support for democratic values and dissatisfaction with regime performance, thereby reinforcing attitudes which encourage upheavals against autocracy? To understand this issue, this study builds upon the ideas of congruence theory originally developed by Harry Eckstein (1961) and expanded elsewhere in previous work (Norris 2011). Where citizens’ preferences match the type of regime in power, congruence theory predicts that institutional arrangements will prove long-lasting. A sense of popular legitimacy implies that the core institutions of the regime are widely regarded as appropriate. Even if citizens dislike specific leaders, feel unhappy with the regime’s policy performance, or disagree vehemently with certain government decisions, nevertheless due to feelings of legitimacy citizens still accept the authority of office-holders. Popular legitimacy helps autocracies to maintain control peacefully, for example if citizens defer to rule by traditional monarchs, religious authorities,

3 It should be noted that in a survey was conducted by the Dubai School of Government in March 2011 among a small sample (N.231) of self-selected respondents using Facebook in Egypt and Tunisia. When asked about the main use of Facebook during early-2011, roughly one third of the respondents replied that that Facebook had been used to raise awareness inside the country on the causes of the uprisings, while one third thought that it had spread information to the world about the movements. By contrast 22% in Tunisia and 29% in Egypt thought that Facebook had helped organize actions and mobilize activists. Salem, Fadi and Racha Mourtada. 2011. ‘Arab Social Media Report: Civil Movements: The Impact of Facebook and Twitter.’ Arab Social Media Report. 1(2). Dubai School of Government. <http://www.dsg.ae>

and ‘strong-man’ leaders. Legitimacy is not essential for repressive regimes, however, since the threat, fear, or actual deployment of coercive methods of control through the security forces are available to rulers. If strongly challenged by popular unrest and maintaining the loyalty of the military, rulers can call the army out of the barracks. On the other hand, if there are marked disparities between expectations and perception of regime performance, then this is expected to undermine regime support, to destabilize the state, and to provide the conditions most favorable to popular uprisings (Norris 1999, 2011). Previous work has identified the phenomenon of ‘critical citizens’ (Norris 1999, 2011), a group likely to express strong support for the principles or ideals of democracy, and also relatively critical in their evaluations of how well their government performs in practice, thereby displaying a substantial ‘democratic deficit’ in their orientations. If those who use social media display an above average ‘democratic deficit’, this would suggest that the effect of the spread of social media in the region is not simply informational and organizational in collective action, but that it can also reinforce cultural values which are conducive to participation in popular protest movements.

Table 4: Disapproval of economic performance

	Egypt	Jordan	Lebanon	Turkey	All
Social media users	58	50	69	61	59
Not users	75	64	73	56	67
Difference	-17	-14	-4	+5	-8

Note: “Do you ever use online social networking sites like Facebook?” “How good a job is the (country) government doing in dealing with the economy?” % ‘Somewhat bad’ and ‘Very bad’.

(Source: The Pew Research Center Global Attitudes Project survey spring 2010. N.3,915.).

Table 5: Dissatisfaction with the future direction of the country

	Egypt	Jordan	Lebanon	Turkey	All
Social media users	51	56	85	66	64
Not users	75	68	89	59	73
Difference	-24	-12	-4	+7	-9

Note: “Do you ever use online social networking sites like Facebook?” “Overall, are you satisfied or dissatisfied with the way things are going in the country today?” % ‘dissatisfied’.

(Source: The Pew Research Center Global Attitudes Project survey spring 2010. N.3,915.).

Table 6: Attitudes towards democracy

	Egypt	Jordan	Lebanon	Turkey	All
Social media users	61	72	84	87	77
Not users	61	72	84	87	77
Difference	0	0	0	0	0

Note: "Do you ever use online social networking sites like Facebook?" "Which of these three statements is closest to you own opinion? Democracy is preferable to any other kind of government. In some circumstances, a non-democratic government can be preferable. For someone like me, it doesn't matter what kind of government we have." % 'Democracy ist preferable to any other kind of government'.

(Source: The Pew Research Center Global Attitudes Project survey spring 2010. N.3,915).

To examine the survey evidence available to test this proposition, we can draw upon the Pew Research Center Global Attitudes Project survey in spring 2010 which asked a representative sample of the general population in Egypt, Jordan, Lebanon, and Turkey about their use of social media platforms such as Facebook and several items monitoring political attitudes. The descriptive attitudes in Tables 4-6 provide an indication of whether the cultural values of social media users in these countries differ from the rest of the population.⁴ The measures provide an indication of cultural attitudes in several diverse countries from the region in spring 2010, before the events in Tunisia, including retrospective evaluations of the government's economic performance, prospective expectations about the future direction of the country, and support for democratic principles. In Egypt, Jordan and the Lebanon, social media users proved to be slightly more positive in their evaluations of the performance of the economy (Table 4), and also more hopeful in their expectations about the future direction of their country (Table 5), although in Turkey social media users proved more negative on these issues. In all the countries under comparison in the Pew survey social media users and non-users proved identical in their support for democracy as the most preferable form of government (Table 6). Thus far from the online population proving more disaffected, in fact overall they tended to be slightly more positive than the general population. Clearly both attitudes and the population using social media are likely to have changed during 2011, following the onset of the Arab uprisings, and further analysis is needed as events unfolded, but nevertheless the cultural attitudes of those who used social media prior to the upheavals was not one most conducive to reinforcing critical citizens.

4 It should be noted that because the socioeconomic variables contained in the Pew survey dataset are not internationally standardized across countries, it is not possible to use the data for multivariate analysis controlling for education, income and related characteristics of the online population.

The Internet and protest activism

Unfortunately the Zogby and Pew surveys cannot direct evidence that users of social media were more willing to engage in protest politics. Here we can turn instead to broader characteristics of the online population by analyzing the 2005-7 5th wave of the WVS, which included measures of use of mass media, the Internet and personal communications, as well as a rich battery of items monitoring political values and experience of protest activism. Not all users of the Internet necessarily tap into social media, and vice versa. Nevertheless Internet use is a proxy measure for the impact of new technologies, as shown by the strong correlation ($R^2 = 0.688$) in Figure 2 between Internet access and Facebook penetration. The fifth wave of the WVS also surveyed several countries from the region, including Iran, Iraq, Morocco and Turkey. When data becomes available, the sixth wave of the survey, conducted in 2010-12, will eventually provide more definitive evidence about cultural changes in the region and worldwide.

The survey measures reported experience of some of the most common types of protest politics which are standard in survey research (Barnes/Kaase 1979), including a scale monitoring joining a lawful demonstration, signing a petition, and boycotting consumer products. Factor analysis showed that these items formed one dimension (Norris 2011). The multilevel models entered the standard controls associated with use of the media, protest activism, and political attitudes, including age, sex, household income, education, democratic knowledge (all at micro-level) and the society's historical experience of democracy during the third wave era (at macro level). To monitor the effects of cultural attitudes, the models entered democratic satisfaction and democratic aspirations, as well as the indicators of use of newspapers, TV and radio news, and the Internet. The results in Table 7 show that the demographic characteristics behaved in the expected fashion; today, following the normalization of protest politics, older groups slightly more likely to engage in protest politics than the younger generation. As reported elsewhere, the greater propensity of the young to demonstrate has gradually faded over time, as protest politics moved mainstream (Norris/Walgraave/van Aelst 2004). There is still a residual gender gap, with men slightly more likely than women to engage in this form of political expression. Education has a strong effect on protesting, confirming the pattern reported in numerous previous studies. The cognitive skills, capacities, and information provided by formal schooling makes it easier for citizens to make sense of complex issues and government processes, and thus to follow public affairs and to become engaged. Education also strengthens organizational skills. Not surprising, in a related finding, those who were more knowledgeable about the principles of liberal democracy were also more likely to be protest activists. Household income is also closely related to educational qualifications, as well as providing financial resources and flexible leisure which can facilitate engagement, and the results confirm that the more affluent sectors were also more likely to participate through these channels.

Table 7: The impact of media use on protest activism

	Protest activism scale		
INDIVIDUAL LEVEL			
Demographic characteristics	b	se	P. (sig)
Age (in years)	.053	.004	***
Sex(male=1)	.019	.004	***
Socioeconomic resources			
Household income 10-pt scale	.009	.004	*
Education 9-pt scale	.131	.005	***
Knowledge of democracy	.078	.004	***
Democratic attitudes			
Democratic aspirations	.005	.004	***
Democratic satisfaction	-.026	.004	***
Media use			
Newspaper use	.043	.004	***
Television and radio news use	.017	.004	***
Internet use	.075	.004	***
NATIONAL-LEVEL			
Historic experience of democracy	.222	.032	***
Constant (intercept)	.567	.031	
Schwartz BIC	107,750		
N. respondents	46,700		
N. nations	42		

Note: 'Protest politics' is a 100-pt scale based on experience of joining a lawful demonstration, signing a petition, and boycotting consumer products. The historical experience of liberal democracy is measured by summing the annual Freedom House index of civil and political liberties from 1972 to 2008, standardized to 100 points. For more details of other scales, see Norris 2011. The table presents the unstandardized beta coefficient (b), the standard error (se) and the significance (P). Sig ***.000, *-.05. The models used REML multilevel regression models where all independent variables were standardized using mean-centering (Z scores), allowing comparison across coefficients.

(Source: World Values Survey 2005-7).

The cultural indicators also performed in the predicted direction, with protest stronger among those with strong democratic aspirations, and among those who were *less* satisfied with the actual democratic performance of their regime. This analysis provides further confirmation of the pattern in post-industrial nations reported by Dalton (2004); adherence to democratic values

strengthens the propensity to demonstrate and to become engaged through unconventional channels. At societal or macro-level, protest politics was also far more common in countries with extensive experience of liberal democracy. Democratic states with a long tradition of freedom of expression, freedom of association, and respect for human rights facilitate the peaceful use of demonstrations and other lawful forms of direct action as a regular part of the political process. After including all these controls, the models show that use of *all forms of media communications were significantly linked with experience of protest politics*. Moreover the strongest effects on activism were demonstrated from use of the Internet, while newspapers proved the next most important, and use of television and radio news exerted a weaker influence. Thus, contrary to theories of media malaise, use of the Internet encourages political engagement through protest politics, as does use of the mainstream mass media.

2.4 Conclusions and Implications

Several major findings emerge from this study. First, the evidence from Zogby surveys confirms that peoples in the region do draw upon social media for information and networking, but the role of social media in the Arab uprisings should not be exaggerated. This channel supplements personal communications and mass media; when asked about news sources used to follow the Arab uprisings, television broadcasts (especially satellite networks such as Al Jazeera and Al Arabya) emerged as more popular than social media platforms such as Facebook and Twitter. This pattern was evident in Tunisia and Egypt as well as the rest of the region. Moreover, in the societies under comparison, at least prior to the revolutions, the Pew survey data suggests that social media users were not particularly radical in their political orientations; instead users proved identical to non-users in their democratic aspirations, and social media users were less negative than non-users in their evaluations of their government's performance and the future direction of their country, not more critical. These findings need to be reexamined as events continue to develop, to see how attitudes evolve, but there is no evidence from the surveys examined that the culture of social media prior to the start of the uprisings was one particularly conducive towards reinforcing disaffection or discontent. Lastly, the World Values Survey (WVS) data in many societies worldwide suggests that general use of the news media and especially use of the Internet are significantly associated with engagement in protest activism, even after applying multiple controls for the prior social characteristics of the Internet population.

The implications of these results need to be treated with caution; the Arab uprisings continue to unfold across the region so it would be premature

to draw any hard and fast lessons from events at this stage. The divergent outcomes in Tunisia, Egypt, Libya, Bahrain, Yemen and Syria suggest that many other factors need to be incorporated into any comprehensive understanding of these revolutions, such as the cohesion and unity of regime elites, the willingness of leaders to concede or to coerce, the loyalties and control of the security forces, the sequential timing of the uprisings across the region, the organization and resources of opposition forces, the role of the international community, and many contingent factors which are specific to each society. Multiple complex factors have led towards each of the uprisings and their aftermaths. Information flowed back and forth through diverse channels. The unique role attributed to social media, often highlighted by commentators, is probably exaggerated. Nevertheless in general, the evidence suggests that social media have contributed towards the revolutions shaking the region, by diffusing the exchange of information, networking activists and dissident movements, and reinforcing the propensity towards engaging in elite-challenging protests and acts of civil disobedience directed against autocratic regimes.

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3. Social media

Jason Abbott

The capabilities, platforms, tools and websites we associate with the term social networks are now so ubiquitous and commonplace that it is hard to believe they are all less than a decade old. Myspace was founded in 2003, Facebook and Flickr in 2004 and Twitter and YouTube in 2005. In the short space of time since then social networking, video/picture sharing and ‘tweeting’ have become arguably the defining feature of contemporary Internet usage. Moreover tools that were designed to facilitate innocuous conversation and social interaction have had unforeseen political impacts. Nowhere was this more visible than during the 2011 uprisings across the Arab World. From Tunis to Cairo, and Tripoli to Damascus, protest movements against authoritarian rule openly utilized social networking and file sharing tools to publicize and organize demonstrations and to catalogue human rights abuses (Norris in this volume). The Arab Spring, or Jasmine Revolution, as the events were dubbed, was an event that was both witnessed and played out in real time online. Six months later the same applications and tools played a pivotal role in the organization of worldwide anti-capitalist protests. Beginning with Occupy Wall Street, the Occupy Movements galvanized an array of disparate social movements to thrust questions of income inequality and government bail-outs of banks and other financial institutions firmly onto the political agenda. Notable among the protestors were several ‘veterans’ of the Arab Spring (Blumenthal, 2011) as well as displays of solidarity for Occupy Wall Street in Egypt’s Tahir Square (Gentile 2011). So what are social networks in the Internet? What are the principal characteristics associated with it? Is it transformative and if so how?

3.1 Social networks: The Internet Reloaded

Social networks (or social networks, SNS) are communities connected in the world wide web to communicate and collaborate (Kersting in this volume). Some refer to the social networks as *web 2.0*, a concept first coined at a software convention around 2004 to hype up a new range of products and applications

(O'Reilly 2005). Web 2.0 is used to describe a marked sea-change or quantum leap in the accessibility of the Internet that has seen the number of users growing from an estimated 45 million worldwide in 1995 to over a billion global users within a decade. Tim Berners-Lee, the man who first developed the address protocols that created the now familiar www pre-fixes to nearly all websites, has dismissed the notion of Web 2.0, however as nothing more than jargon (Anderson 2006). For Berners-Lee the web was always an interactive space designed to connect people. What did change however was the development of javascript and Ajax software. The former enabled websites to be more dynamic, to include animation, streaming of video, to validate forms and so forth while the latter enabled applications to send and retrieve data from a server. Combined the two programs allowed websites to evolve from being mostly read-only to the interactive read and write format that has become the norm today. In other words the transition from Web 1.0 to Web 2.0 came with the development of a much more participatory social, 'user-generated' Web. The result, to quote Tapscott and Williams (2010: 45), "is that the Web is no longer about idly surfing and reading, listening or watching, its about peering, sharing, socializing, collaborating and most of all creating within loosely connected communities"

3.2 Here comes everybody – the rise of produsage and the producer

One of the most striking features of the development and proliferation of applications, tools and services associated with this user-generated web is the transformative effect that it is having upon the public at large. Some argue (Bruns 2009, Rheingold 2003, Shirky 2008, Tapscott/Williams 2010; Toffler 1990) that the overall impact is a radical transformation of existing models of production and consumption away from the mass production and passive mass consumption model. The prominent futurist Alvin Toffler, dubbed the emergence of more flexible production and greater concern with customization prosumption, Bruns argues that in this model the consumer still remained subordinate in the process free merely to exercise "more advanced consumption skills" (Bruns 2009: 11).

In contrast the rise of the Internet is radically transformative since consumers can now, and are already, becoming active producers of content and distributors of information. Consequently consumers and audiences are no longer merely passive but now active and participatory, able to communicate opinions, express ideas and creativity. Coupled with the development of peer to peer and commons based production the consumer is transformed into what Bruns defines as a hybrid user/producer role he calls *produser*. Already the Internet and social media are replete with examples of such produsage from open source software, of which Linux is the most famous, to the development of the online encyclopedia, Wikipedia and the California Open Source Textbook project.

Tapscott and Williams (2010) define this shift to peer production as one “that relies on self-organizing, egalitarian communities of individuals who come together voluntarily to produce a shared outcome ... [combining] elements of hierarchy and self-organization and ... meritocratic principles of organization” (67). Everywhere such produsage is challenging existing industries but nowhere more so than in the media and news industry.

Under the earlier modes of production in the broadcast media consumers (as viewers, listeners or readers) had very little means of responding to what they saw and heard or even of accessing media on their own¹. Today in the new ‘networked’ model producers and users are merely “equal nodes in an information network which empowers users to build their own communities” (Bruns 2009: 14). Traditional roles (the editor, the journalist, the columnist, the producer) and functions (e.g. gatekeepers), are now being transformed and overturned as blogs, podcasts, photo and video sharing sites, and live streaming now mean that “every new user is a potential creator and consumer, and an audience whose members can cooperate directly with one another, many to many, is a former audience” (Shirky 2008: 106-7). For the cheerleaders and evangelists of this transformation what we are witnessing is nothing less than increased democratization; both in terms of freedom to produce and the increased freedom of speech that accompanies that.

In order to explore these impacts in greater detail this chapter will explore the social and political impact of the growth of this participatory revolution. In particular it will focus on the developments and opportunities created by new forms of individual and collective action. An analysis of all the applications, platforms, tools and services that comprise this user-generated web is well beyond the scope of a single chapter, thus for purposes of brevity and clarity the chapter will draw attention to the following: the impact of social media networking services such as Facebook and Twitter; the growth of blogging and the subsequent rise of Citizen Journalism; and collaborative knowledge production (epitomized in the phenomenon that is Wikipédia). Finally the chapter will address whether the cumulative impact of these is transforming the nature of civic engagement and participation in such a way that it is leading to the emergence of mechanisms for deliberative democracy.

3.3 Blogging and the advent of Citizen Journalism

Of all the applications associated with social media the oldest is the weblog or blog as it is now uniformly referred to. Although it is difficult to be precise

1 In the sense that the common model of broadcast media was of a limited number of nationwide broadcasters (‘networks’) paid for by public spending, license fees, and/or commercial advertisements. Choice was severely restricted until the advent of cable television which itself required sizable subscription fees.

when blogging first emerged, since tech savvy activists, scientists and students began writing and publishing online diaries and adding hypertext links quite early in the development of the Internet, the term weblog was first coined in 1997 by Jorn Warden to describe a list of links that traced his online meanderings (Wortham 2007). In 2012 it is estimated that there are over 150 million blogs worldwide covering every conceivable topic, taste and interest. What facilitated this explosion was the evolution of tools to produce and maintain articles on the web that required minimal technological expertise and thus meant that in practice they were accessible to all. Of particular importance were the creation of blog hosting websites such as *LiveJournal* in March 1999, *Blogger* in August 1999 and *WordPress* in 2003.

The impact of this was to effectively lower the cost of publishing to zero, opening the way for anyone to publish their musings and thoughts online. The impact of this is still being felt but it is now widely acknowledged that the ‘mass amateurization’ of journalism and publishing (Shirky 2008) is having profound effects on traditional models in those industries. But it is not only that the transaction cost of publishing has fallen. Another key distinction between blogs and conventional journalism is that the audience is no longer simply an active consumer of information. Since their inception blogs have incorporated links to other blogs and websites and provided opportunity for readers to leave comments and engage in dialogue with both the author and with other commentators. While cynics point out that the majority of blogs last less than a year, are read on average by only a handful of people, and that the blogosphere as a whole is “teeming with nationalism and xenophobia” (Morozov 2011: 83) others maintain that regardless of whether the blood-thirsty or altruistic are empowered, the overall impact is an increase in freedom of speech and association (Bruns 2009; Shirky 2008).

The precise origins of Citizen Journalism are unknown, although a case can be made that it far from a new phenomenon. From pamphleteers during the American Revolution, to the Zapruder film which famously captured the assassination of John F. Kennedy, amateurs have long been a feature in producing and capturing news (Gillmor 2004). Nevertheless until the advent of desktop publishing, digital cameras, smartphones and the social media their number and influence were extremely limited.

Most accounts of the rise of Internet driven Citizen Journalism usually cite the creation of the organization Indymedia – the Independent Media center – in 1999 as marking the definitive origin of the phenomenon². Indymedia was established during the anti-World Trade Organization protests that took place in Seattle as a protest against the perceived bias of the mainstream media in their coverage of the events. Combining passionate volunteers, basic

2 Though it should be noted that much of the inspiration for Indymedia came from the successful use of Internet based email list servers and bulletin boards by the Zapatistas following their uprising against the North American Free Trade Agreement in 1992.

website coding and IT knowledge and shared equipment Indymedia created a participatory website, an Internet radio station, and a collection of photos and videos of the protests that allowed activists to publicize and share alternative coverage of the event (Issue 2005). The success of the center resulted in activists worldwide setting up similar sites in over a dozen different languages across 40 countries. One of the most striking and innovative aspects of Indymedia's various websites is that they are open newswires where anyone can publish news from their own perspective. In addition the material published on the sites are deemed to be both open source and a creative commons and thus can be freely reproduced for non-commercial purpose.

Alternative websites and blogging aside it was only with the mass amateurization of photography and video that Citizen Journalism began to make its presence felt to a wide public audience. The rapid diffusion of lightweight portable digital cameras and their subsequent incorporation into cellphones now means that people on the scene of an event are able to share their images and story with a global audience alongside the professional reporter. This was first vividly and tragically demonstrated during the 2004 Asian Tsunami when hundreds of eyewitnesses and survivors were able to rapidly share their images and accounts largely by utilizing the blogging infrastructure that was already in place. The BBC was one of the first media organizations to recognize the value of these first hand accounts providing survivors with locations on its website where they could email these accounts and share images and video (BBC News Online 2004). A year later the earliest photos and videos from the London bombings on July 7 were also taken by ordinary citizens with their cellphones many of which were subsequently broadcast by the mainstream media, in part because camera crews were prevented from reaching the site quickly for security reasons (Dunleavy 2005). Since then mainstream media sites worldwide have accepted photos, video and text reports from citizen journalists worldwide.

On a more profound level, blogging and the phenomenon of Citizen Journalism fundamentally challenges and undermines the commercial and industrial model of journalism by challenging both commercial and professional norms as well as the gatekeeping role that have been a core feature of the industry. Gatekeeping here refers to the process by which journalists and editors determine what stories are worth investigating and what stories are worth publishing, with such selections primarily driven by commercial and normative considerations. As Dunleavy (2005) elaborates,

“In modern times, society has come to depend primarily on trained professionals to report what constitutes the news. News, in this configuration, however, has values which reporters, editors and photojournalists learn to prioritize, classify and categorize. Information is placed in a hierarchical order based on values such as relevancy, consequence, proximity, prominence, novelty and other values (n.p.)”

Whereas in the past, “it used to be hard to move words, images and sounds from creator to consumer” (Shirky 2008: 59) today the development of blogs, videoblogs, podcasts and the sharing of files via social media now mean that the amateur has the same tools available to them as the professional journalist and the traditional media is challenged as never before by the mass amateurization of publishing. This is eroding the professional and thus societal role of journalists and editors as “the institutional prerogative” (Shirky 2008: 66) of news is transformed into a landscape and ‘ecosystem’ of a billion editorials.

Furthermore as discussed earlier the Internet is also transforming the role of the public from passive consumers of information to active and interactive *prod-users*. In the media industry the exponential growth of information readily available on the Internet has now created an environment in which the public at large is now increasingly accustomed to searching for information, analysis and opinion themselves. While, as Bruns notes (2009: 72), most may still not be ‘at the scene’, the Asian Tsunami and London bombings revealed that the audience as ‘user’ now has a much greater access to “a variety of first hand accounts of the scene”. Furthermore formerly passive audiences are now much more likely to ‘fact-check’ what is reported discerning omissions and contractions, whether they be driven by considerations of space or by the commercial interests of the proprietors of the newspaper or television station. In past ‘news’ meant both what the press considered newsworthy as well as what was actually covered by the press (Shirky 2008: 64). Today however while editors can still choose to ‘kill’ a story this no longer necessarily signals the death of it since the news can break into public consciousness without the traditional press. A good illustration of this can be found in the controversy surrounding the initially limited and largely negative coverage of the Occupy Wall Street protests in the United States during the autumn of 2011.

The Occupy movement began on September 7th 2011 in Zuccotti Park, New York with the Occupy Wall Street movement. Initially initiated by the Canadian anti-consumerist activist group *Adbusters* (Kaste 2011) to protest against economic inequality and the undue influence of the financial sector on Western democracies, similar movements sprang up largely spontaneously in cities across the United States and the rest of the world throughout September and October. Despite the success of the movement in mobilizing copycat groups on a global scale there was initially comparatively little mainstream media coverage within the United States. Indeed five days into the protest controversial cable news commentator Keith Olbermann lambasted the mainstream media for ignoring the protests (Stoeffel 2011). Olberman’s voice joined a growing chorus of ordinary citizens and bloggers who be-moaned not just the limited coverage of the “the greatest social-justice movement to emerge in the United States since the civil rights era” (Lasn/White 2011) but the largely negative and pejorative nature (Bellafante 2011; Crovitz 2011; Weiss 2011) of what little reportage there was.

There was particular outcry for example when the *Washington Post* published a front-page picture of a bearded protestor allegedly tackling a police officer accompanied with the headline “Obama looks to harness anti-Wall St angst”. Interviews with the freelance photographer who took the picture and subsequent footage of the incident from alternative angles clearly showed that the man in question was trying to come to the aid of another protestor, Felix Rivera-Pitre, who was punched in the face by NYPD Deputy Inspector Johnny Cardona (Elliot 2011). Critics argued that such misrepresentation was an attempt to demonize the movement by trying to radicalize what had largely been a non-violent protest movement (Shaw 2011). Such coverage only changed after an Iraq war veteran was hit by a ricocheting tear gas canister that rendered him unconscious (Gabbatt 2011), and when police officers at the University of California Davis pepper sprayed students peacefully protesting in support of the Occupy movement (Gould 2011). Nevertheless throughout it all concerned citizens were able to find alternative sources of information including the coverage of events by the British newspaper *The Guardian*³ and a 15 year old non-profit TV and radio program *Democracy Now* (Stelter 2011). In addition the Occupy protestors themselves used sites such as *Indymedia* and *Democratic Underground*⁴ to post first hand accounts from the occupations themselves as well as maintaining live web feed, and social media updates, from Zuccotti Park and other cities across North America. This notwithstanding some mainstream journalists expressed their frustration at the uneven coverage including freelance journalist Natasha Lennard who resigned from working with the *New York Times* stating:

“If the mainstream media prides itself on reporting the facts, I have found too many problems with what does or does not get to be a fact – or what rises to the level of a fact they believe to be worth reporting – to be part of such a machine. Going forward, I want to take responsibility for my voice and the facts that I choose and relay. I want them to instigate change” (Lennard, 2011).

Lennard’s announcement came after she was dropped from the Times’s roster following her participation in a pro-Occupy Wall Street panel. However by way of indication of the changed landscape of the media in the era of social media, Lennard was subsequently hired as a columnist for the popular online magazine Salon.com. Nevertheless what the above case illustrates is how the

3 Prior to the Occupy movement traffic from the United States to the guardian’s webpage had already grown to over 8.5 million visits a month making it the largest audience for the newspaper outside of Britain. In response to this the paper made the decision in April 2011 to relocate several senior staff to a New York desk as well as to launch a new URL and front page for its US readers (Adams, 2011). When the Occupy movement began visits to the Guardian jumped further to over 10 million visits.

4 Democratic Underground is an online community of progressives and Democratic party supporters in the United States. Besides the usual combination of stories, columns and links the site also maintains extensive discussion forums on which over 50 million messages have been posted since the community was founded in 2001

once passive audience has now become a monitorial citizenship (Bruns 2009: 371), able, capable and willing to highlight examples of institutional bias and deliberate misrepresentations, while providing alternatives to serve as necessary correctives. Moreover the phenomenon of Citizen Journalism speaks to the growing conviction that the mainstream media no longer enjoys a monopoly on knowledge and that collectively the audience knows more on a subject than a specific commentator, correspondent or reporter. Indeed one recognition of this is that an increasing number of media outlets are now harnessing their audiences by providing space for comments at the end of stories, accepting video and pictures taken by ordinary people or more innovatively by creating citizen journalist databases of contributors or sources. In addition the distinction between Citizen Journalism and professional journalism is becoming ever more blurred as more and more professional journalists are now writing blogs and using twitter outside of the organization they are employed by.

3.4 Social Media and Social Networking Services

Arguably the most visible face of social network applications and tools today are the social media networking sites Facebook and Twitter. While neither were designed to facilitate social and political organization, “savvy opposition campaigners [have] turned social media applications like Facebook from minor pop culture fads into a major tool of political communication” (Howard 2011: 4). In other words while neither Facebook nor Twitter’s role is to create content, they do enable and empower others to share what they create on a scale that would have been unthinkable a decade ago. By December 2011 the number of Facebook users had exceeded 845 million; Twitter, 465 million (Messieh 2012). While the average number of friends a user on Facebook has is approximately 120, studies of social connectedness have long shown how our social networks can connect extremely large numbers of people with relatively few degrees of separation. Indeed while Stanley Milgram may have concluded in 1967 (Milgram 1967) that it only took six intermediaries to send a message between two randomly selected individuals (the infamous six degrees of separation), Facebook concluded from its own research on the 70 billion friendships between in its users that the average distance between users was a mere 4.74 (Markoff/Sengupta 2011). Such connectivity, and the speed with which those connections can now be utilized has given rise to the phenomenon of going viral – a term used to describe when a piece of internet content is shared at such a rapid rate that it quickly becomes ubiquitous, often crossing from the new media into the traditional media and the public consciousness. Thus although most social media posts get relatively little notice, some capturing the zeitgeist, go viral and have an enormous impact.

One of the biggest problems in analyzing such impacts is that there have been few cross-country studies of this phenomenon to date and the majority of the ones that have been conducted have been done so by commercial organizations such as the US based media research company Nielsen. Data from such reports however does demonstrate that new social media is having a growing impact on the online population globally. Nielsen found for example that 74 per cent of the worldwide Internet population has visited a social network or blogging site and that users spend an average of 6 hours a month on such sites.

Shirky argues that one of the most revolutionary features of social media is that it creates a 'shared awareness' of the realities of public and private life. In addition while the state may have ever more sophisticated tools of surveillance ordinary citizens also now have the ability to use similar tools against the state. Nowhere does this have more impact than in autocratic regimes where the state "accustomed to having a monopoly on public speech [now] finds itself called to account for anomalies between its view of events and the public's", anomalies that are increasingly highlighted by the growing legion of citizen journalists and bloggers.

Skeptics of the political impact of social media such as Morozov (2011) maintain that technological-savvy authoritarian governments are still capable of censoring these new technologies directly, or indirectly by encouraging self-censorship and the complicity of corporate actors. Nevertheless both Shirky (2008, 2010) and Howard (2011) argue that while the above may be true, the technologies nevertheless do confer certain advantages to activists that 'old' communication technologies did not. Additionally the new communication tools also confer significant disadvantages to autocratic regimes. Of the latter Shirky (2010) argues that social media now create what he dubs 'the *conservative* dilemma'. This dilemma comes from the fact that traditional methods of countering dissident voices: propaganda and censorship are now less effective. Since citizens can 'fact check' government narratives in a way that was impossible before, the value of propaganda is reduced, while censorship of the Internet can have adverse economic and commercial ramifications.

This dilemma also provides a retort to the argument that the overwhelming majority of users of new information communication technologies are apathetic, more likely to use the Internet to chat with friends, download music and play games. As Shirky (2010) contends, the problems for autocrats is that "[t]ools specifically designed for dissident use are politically easy for the state to shut down, whereas tools in broad use become much harder to censor without risking politicizing the larger group of otherwise apolitical actors". This has been dubbed by Zuckerman the cute cat theory of Internet activism since specific tools designed to counter censorship can be shut down but "broader tools that the larger population uses to ... share pictures of cute cats are harder to shut down" (Shirky, 2010). Moreover as Zuckerman (2008) contends,

“cute cats are collateral damage when governments block sites. And even those who could not care less about presidential shenanigans are made aware that their government fears online speech so much that they’re willing to censor the millions of banal videos... to block a few political ones.”

Furthermore Zuckerman (2008) argues that such action actually has the effect of radicalizing such users since blocking content effectively “teaches people how to become dissidents... [learning how] to find and use anonymous proxies” which itself becomes a “first step in learning how to blog anonymously”. Indeed recent data by Pew on social media in the United States found that Internet users are more likely to be politically active than non-users with Facebook users in particular “more likely to be politically involved than similar Americans” (Hampton et al. 2011, n.p.). In particular Internet users are nearly two and a half times more likely to have attended a political rally, 78 per cent more likely to have attempted to influence someone’s vote, and 53 per cent more likely to have reported voting or intending to vote than non-internet users. Additionally a Facebook user who visits the site multiple times per day is over five times more likely to have attended a meeting than a non-Internet user, 2.79 times more likely to talk to someone about their vote, and 2.19 times more likely to report voting.

Howard (2011: 12) echoes Zuckerman’s view arguing that while social networking and the diffusion of ICTs does not substitute for traditional political activism “in times of crisis banal tools for wasting time... become the supporting infrastructure of social movements”. Howard gives the example of the surge in traffic to political blogs in Iran during the failed Green Revolution, but a similar phenomenon was observed in Malaysia on the night of the 2008 General Election results when traffic to the independent news site Malaysiakini surged when it became clear that the opposition had performed better than anyone had expected and the mainstream media simply did not know what or how to report this (see also Abbott 2001)

Declaring that Facebook campaigns and activists twittering where the next demonstration against a regime will take place does not mean that such tools themselves will *cause* regime change and political revolutions. Facebook chief executive Mark Zuckerberg echoed this when he told the 2011 e-G-8 forum in Paris that the social media site’s role in the Arab Spring had been overplayed and that “Facebook was neither necessary nor sufficient for any of those things to happen” (Bradshaw 2011). Despite this caveat Zuckerberg did acknowledge that the tools for sharing photos and status updates were, “exactly the same tools... that enable broader changes” (Bradshaw 2011).

For revolutions and transitions to occur local actors, local processes and specific factors will be causal. However as examples from the Arab Spring, Burma, Iran and Russia demonstrate Facebook, Twitter and Youtube are increasingly playing a role in *assisting* the coordination of demonstrations and protests and are *enabling* activists to get footage out to the global media au-

dience even when foreign journalists are denied access. One means by which the latter is made possible is through the emergence of blogging and other forms of Citizen Journalism.

3.5 Collaboration – Resolving the Collective Action Problem?

Another feature of the rise of this so-called monitorial citizenry is that it appears to have significantly lowered the costs of collective action. Such costs should not just be measured in terms of the costs of producing and sharing information but more profoundly the costs of concerted social and political action. As Tufekci (2011) argues with reference to the Arab Spring, the rapid spread of Internet applications, and Facebook in particular, lowered the cost of dissident in regimes where censorship and the control of public protest were the key means of autocratic control.

While the most famous example of a collective action problem is Garrett Hardin's (1968) treatise *The Tragedy of the Commons*, which explored the question of how we stop the overconsumption of scarce natural resources, political scientists and sociologists have pointed to the existence of similar collective action dilemmas: the pursuit of self-interest at the expense of a public good, in multiple areas of social life. Such dilemmas have particularly interested game theorists who over several decades have tested repeated variations of collective action games and concluded a number of notable features. Firstly as Tufekci notes "game-theorists have long known that communication between participants dramatically alters the dynamics of these 'dilemmas'", secondly that small groups are more likely to cooperate than larger ones and finally, and most significantly that cooperation increases when the game are repeated (iteration) over and over again with the same participants (Olson 1965). Many early game theorists however were pessimistic that larger groups could resolve the core dilemma unless there was a form of coercion or special device to make individuals act in their collective interest. It was of course such dilemmas that led philosophers such as Thomas Hobbes to thus argue for the necessity of a sovereign state a Leviathan that would prevent a war of all against all. However others (Estrom 1990: 27) noted that the collective action dilemma could be overcome where certain conditions could be met: group boundaries are clearly defined; rules governing the use of collective goods are well matched to local needs and conditions; most individuals affected by the rules can participate in modifying the rules; the rights of community members to devise their own rules is respected by external authorities; a system for monitoring members behavior exists; a graduated system of sanctions is used who do not comply; there is low cost access to conflict resolution mechanisms.

One of the most interesting developments on the Internet with the explosion of social media applications and tools is what appears to be an extremely successful mechanism for solving such collective action problems with regard to social organization. This is the emergence of reputation and prestige systems more commonly referred to and known as ratings. From *Ebay* and *Amazon* to Facebook *ratings* and *prestige* have become not just ubiquitous features of social media but arguably crucial tools in maintaining collective public resources.

For those not familiar, *Ebay* began life as an online auction site, although it has since become more and more like an online retail site. Begun in 1995 by Pierre Omidyar, who listed a broken laser pointer for sale (Cohen 2003), *Ebay* works to bring buyers and sellers together making its money from a listing fee. *Ebay* does not guarantee that the transaction will occur, that the goods will be received, will be in the condition indicated, or that the seller will be paid. All of this relies on trust and of course the danger in any situation such as this is that free riders will exploit the situation to their advantage. And yet *Ebay* rapidly has become a hugely popular and successful site recording over 85 million users by 2010 generating \$62 billion in transactions. This was achieved by introducing a rating system for buyers and sellers. Satisfied buyers and sellers were able to rate each other originally with a score of -1 (negative), 0 (neutral) or +1 (positive) and since 2005 with a score from zero to five. This rating as well as written text is publicly available. This enabled users to both punish and reward where appropriate and the system thus evolved into one where prestige became a sought after designation by buyers and sellers alike since buyers and sellers were more likely to trust engaging in a transaction with another user who had a high rating. As Rheingold comments, “over time consistently honest sellers build up substantial reputation scores, which are costly to discard, guarding against the temptation to cheat buyers and adopt a new reputation” (2002: 125). As a result it is estimated that close to 99.99 per cent of all goods auctioned are completed successfully and that fraud on the site actually runs at rates much lower than shoplifting in conventional retail. Similar reputation systems are now a key feature of online retailer *Amazon*, where customers are also able to write lengthy and detailed reviews of the products they purchase, of hotels and other travel services (*Tripadvisor*), of consumer goods (*Eopinions*), movies (*Rotten Tomatoes*) videos (*Youtube*) and so on. On some sites ratings are little more than likes vs. dislikes, but over time the standard model has become a star rating out of five with the option to provide critical commentary.

The Internet and social media tools have facilitated this solution to collective action dilemmas partly because the Internet was designed from its inception as an innovative commons. In terms of reputational capital what the Internet has done is “restored the shadow of the future to each transaction by creating an expectation that other people will look back on it.” (Resnick et al. 2000). The *shadow of the future*, as expounded upon by game theorists, is

simply the probability that actors will meet again. Where that probability is high research demonstrates that this increases cooperative behavior. What makes reputation systems on the Internet of particular note is that the system has evolved *despite* the fact that most interactions are isolated and not themselves repeated. Instead users as a whole rely on a history of a seller constructed from past isolated opinions, thus “past isolated interactions assume the attributes of a long-term cooperative relationship” (Resnick et al. 2000). The sheer volume of interactions on the Internet and the ratings of these transactions have therefore changed the balance in the dilemmas of cooperation.

One of the best examples of this, and arguably the most famous collaborative enterprise on the social media is the online encyclopedia *Wikipedia*. *Wikipedia* began as a project entitled *Nupedia* which Jimmy Wales and Larry Sanger envisaged as an online version of a traditional encyclopedia (Fletcher 2009). In other words the product would be the creation of a team of experts who would be hired to write entries on subjects that they specialized in. However Wales and Sanger soon found that the process was taking much longer than originally envisaged with only 12 articles completed in the first year. In order to speed the process up Sanger and programmer Ben Kovitz suggested using a wiki, a piece of software that allows users to add, modify or delete content using a text (html) editor. The proposal met with widespread opposition from those working on *Nupedia* so the wiki was given its own separate domain name, Wikipedia.com and was envisaged as feeder project to *Nupedia* allowing collaboration on articles prior to the peer review process. Within a month of its launch on January 10th 2001, 1000 articles had been posted growing thereafter at a rate of 1500 articles a month during the site’s first year. The exponential growth of *Wikipedia* eventually led Wales to close *Nupedia* in September 2003 by which time Wikipedia had surpassed 100,000 articles and had already spawned multiple non-English language versions including Chinese, French, German, Hebrew, Italian, Japanese, Russian and Spanish. Today *Wikipedia* is one of the most visited and influential websites on the Internet. Ranked 6th globally *Wikipedia* has become the most popular reference site on the Internet as well as the largest encyclopedia ever assembled in history. But what makes it truly unique is that the whole enterprise is the result of voluntary contributions and collaboration by an estimated 100,000 regular contributors worldwide. In other words *Wikipedia* represents precisely the kind of collective public resource discussed earlier.

Underpinning the entire Wikipedia project are the foundational beliefs that everyone and anyone can contribute, edit or start an entry, and that collaboration among users will increase the quality of content over time. While many challenge this assumption (Lawton 2006), the ethos assumes a Darwinian-like evolutionary process of development “where content improves as it goes through iterations of changes and edits” (Tapscott and Williams 2010: 73). Although acknowledging that misleading information can be inserted

into entries defenders of *Wikipedia* argue that through learning substandard edits will rapidly be removed. As Bruns (2009) comments the whole process is based on “a gradual appreciation in quality [that] is reliant on probabilistic approaches which assume the net dominance of constructive contributions over disruptive edits” (110). (In other words that there are more people who care about Wikipedia than there are vandals who would deface it). One way in which this is achieved is through the creation of a community of contributors and editors and a ‘sense of belonging’ which shifts “the balance between positive and negative contributions towards a ratio which enables a gradual improvement in quality” (Bruns 2009).

What is interesting is despite the ability of anyone to edit Wikipedia pages the community is actually dominated by a tiny proportion of users who make frequent edits. Most contributions to the site are tiny with the significance being that the site as a whole is able to aggregate these individual contributions into the vast repository of data and information. Nevertheless Jimmy Wales the founder of Wikipedia estimates that some 50 per cent of edits are made by less than 1 per cent of users. Indeed data from Wikipedia shows that of the 16 million Wikipedia user accounts fewer than 2 per cent, approximately 300,000, edit Wikipedia every month, (Shirky 2008: 128). Among these a very select group of about 5,000 make more than 1000 edits with an even more active core of around 150 users responsible for over 100,000 edits each since they joined the site. But why do people invest their time and effort into an enterprise that is largely anonymous? The most common motivations for edits are to correct mistakes and contribute to knowledge by teaching something ‘to the world’ (sic). Data from Wikipedia itself appears to confirm this revealing that 69% of users edit Wikipedia to fix errors, while 73% do so because they want to share knowledge.

Much as in the debate over citizen journalism critics of *Wikipedia* (Goldman 2010), argue that the mass amateurization the project represents can only result in a product that is lacking in accuracy, quality and reliability. Statistics from *Wikipedia*, for example, show that only 19 per cent of its editors hold Masters degrees and less than 5 per cent doctorates. Nevertheless in a controversial December 2005 study that compared *Wikipedia* to *Encyclopaedia Britannica*, the influential magazine *Nature* found that Wikipedia was as accurate as Britannica (Giles 2005). In a single blind study of 42 scientific articles that included biographies, *Nature* found that both encyclopedias contained only four serious errors. Similar studies in 2007 in Britain and Germany comparing Wikipedia to commercially available encyclopedia produced similar results while a 2007 study by Stern magazine found that Wikipedia was more accurate than the German *Brockhaus Enzklopadie* (Stern 2007). Studies of drug entries on Wikipedia in 2008 and health risks of various chemicals in 2009 also found that the entries were broadly accurate (Heilman et al. 2011) and indeed in the case of the latter far more reliable than traditional news media. Nevertheless in all such studies the most com-

mon criticisms of Wikipedia were errors of omission rather than inaccuracy (Kupferberg/Protus 2011; Heilman 2011), poor structure, poor writing (including spelling mistakes) and attention to trivial matters and useless arcana.

The nature of Wikipedia means that it can be and often is subject to vandalism and susceptible to bias. In certain circumstances to avoid these pages can be and are locked to prevent this. However the numbers of pages that are locked to prevent extreme vandalism constitute less than 0.5 per cent of the total and are thus a miniscule proportion (Shirky 2008: 138). Moreover studies reveal that vandalized pages and inaccuracies are removed on average very quickly. On contentious subjects like abortions evidence shows that deletions are restored within 2 minutes (Shirky 2008: 36). While studies that have deliberately inserted erroneous information in order to test how quickly the *Wikipedia* community is able to locate and remove have shown that 42 per cent are removed almost immediately. Tapscott and Williams for example cite an MIT study that revealed that an obscenity randomly inserted into Wikipedia is removed on average within 1.7 minutes. (2010: 75).

This notwithstanding, attempts to manipulate Wikipedia are common and were strikingly revealed in 2007, when as part of the process of self-correction and self-policing characteristic of peer-to-peer networking Virgil Griffiths created and introduced *Wikiscanner* to track the millions of anonymous edits on Wikipedia to IP addresses (Hafner 2007; Moses 2007). In so doing he discovered that manipulation was not the sole reserve of cyber-vandals but that over 187,000 organizations had made at least one anonymous edit. These organizations included governments (Canada and Portugal), government agencies (the CIA, FBI, and the Australian Department of Defense), international organizations (the United Nations, Amnesty International, The Church of Scientology), political parties (the United States Republican party, and the British Conservative party), newspapers (The New York Times and The Guardian), corporations (Apple, Disney, Sony, and Walmart) and politicians (including Vice President Joe Biden's staffers). While embarrassing to the parties concerned, what these instances nevertheless reveal is that the site really is available to everyone and anyone but, unlike traditional encyclopedia, *Wikipedia* is not a finished product but an ongoing process. In this sense like much of the content of *Wikipedia* is built on 'publish then filter' model rather than on the traditional media model of filter first before publishing. Much as most blogs facilitate a dialogue with their audience in which the author acts as publisher, commentator and moderator, on *Wikipedia* every edit and change is tracked and all discussion and debate concerning entries is visible via its history. As Bruns remarks (2009), "*Wikipedia* resembles the historical palimpsest: a repeatedly over-written document which on closer investigation shows the traces of this "process of content creation and collaboration" (139). The result is not just a new 'knowledge space' but a deliberative and participatory process that potentially has application and ramifications for social and political action itself.

3.6 Social Media, deliberative democracy and increased participation

While examples from the Arab Spring and the Occupy movements demonstrate how social movements have taken advantage of many of the new tools of social media to campaign, organize protest and disseminate alternative information, it is too early to determine whether the social networks lead to a significant reinvigoration of citizen participation in the democratic process as a whole. Nevertheless there are many Web evangelists who claim that much in the way that the Internet is eroding traditional media models, so democracies may also move from ones that are merely consumed or “acted out in front of citizens”, to ones “that are enacted by them” (Bruns 2009: 359)

Across the globe democracies remain largely wedded to forms of representation and processes of deliberation that emerged alongside processes of industrialization and mass consumerism. Unsurprisingly then for the most part politics resembles such an industrial-era process (Bruns 2009: 360) in which we can discern clear distinctions between the producers of politics (principally politicians and lobbyists), distributors of politics (the traditional media) and the wider electorate which, aside from infrequent mass exercises of their collective will in periodic elections, acts mostly as consumers of politics. So far this model remains rather robust although already the social networks are beginning to have an impact even if to date that has largely been by providing both an alternative site of media coverage of campaigns as well as of organizing those campaigns (Boehlert 2009). However it should not be inconceivable that the Web’s impact could eventually be much more profound and transformative, and if it is to be then it should mirror the developments we are witnessing in other ‘industries’, namely the transformation of electorates from passive consumers of political information to electorates of prod-users.

What emerges in its place is not yet clear, but one of the key features of nascent political web communities is that they are much looser communities in which new communication technology facilitates greater dialogue and discourse. In particular, unlike in traditional political parties or established social movements such communities “do not amalgamate their members into a movement unified by a single common vision for society (Bruns 2009: 362). Much for example has been made of the seemingly spontaneous nature of the Occupy movements in 2011, their lack of leadership (Hawley/Caruso 2011) and most significantly the lack of concerted, well-defined goals (CBS News, 2011) Such criticism however misses the point of these movements. What makes them ‘new’ and distinct is that they operate in a fluid manner in which patterns of behavior emerge largely without the creation of hierarchy or obvious leadership struggles. The fact that there was no single message uniting the Occupy movements speaks to the fact that these movements brought to-

gether disparate groups with shared grievances against the present capitalist system. People did not have to sign up to a pre-agreed manifesto but instead came together in concordant and cooperative patterns of behavior, they were free to join and match their interests to communities and to sub-groups within them.

The Occupy movement also reflects the fact that in any large community of collaborators there will need to be both enhanced understanding of opinions, and mechanisms to construct consensus from the bottom-up. Commentators thus speculate on how the growth of tools for social participation may facilitate such consensus building (Leighninger 2006). Blogs, agglomeration sites, and tools for sharing within social networking services, such as Facebook and Twitter, are all tools for collective participation; in fact a key feature of social networks is the explosion in virtual communities. Robert Putnam (2000) may have bemoaned the decline of social capital in America in his landmark text *Bowling Alone*, pointing to the precipitous decline in the numbers of Americans joining established social groups (including bowling teams), but a decade later more Americans, and indeed more people worldwide than ever before, have joined and continue to join dozens of online communities catering to almost any and all topics and tastes. These communities Scott and Johnson found (2005: 13) “can support rich, compelling, and sustainable social settings and genuine, sustainable communities”. Such communities are conversing, exchanging ideas, and are already impacting upon existing modes and media of political discourse.

Indeed recognizing this, many governments have sought to incorporate such deliberative processes into open government strategies that have been launched in the past decade (see Wojcik in this volume). Of these the most common were petition websites whereby ordinary citizens could build petitions and collect signatures online on almost any subject with petitions reaching a certain minimum threshold guaranteed to receive an official government response including in some cases eligibility for debate in the legislature.

3.7 New forms of participation and deliberation

Another purported impact of the development of social media on participation in politics is that roles are becoming much more fluid. As tools for collaboration, discourse and participation proliferate citizens are becoming much more actively engaged in the process of policy formation and policy acceptance. One example of this that appears in the literature is the creation and development of the non-profit, liberal, progressive group *MoveOn.org*. MoveOn was originally founded in 1998 in response to Republican efforts to impeach then United States President Bill Clinton. Founded by IT entrepreneurs, Joan Blades and Wes Boyd, the organization’s initial goal was to end

the partisan rankling over the impeachment process by hosting an online petition that stated that “Congress must Immediately Censure President Clinton and Move On to pressing issues facing the country” (Zetter 2004). The petition quickly garnered over half a million signatures. Post 1998 MoveOn developed a number of programs including online fundraising against candidates that had voted for impeachment, an online petition against the build-up for the 2003 war in Iraq and in 2003 a virtual primary between Democratic candidates Howard Dean John Kerry and Dennis Kucinich (Reid 2003). In January 2004 it called on its members to create their own 30 second television advertisement criticizing the Bush Presidency. Dubbed “Bush in 30 seconds”, MoveOn promised to air the winning entry during the Super Bowl.⁵ The group received over 1,500 entries and over 100,000 people then voted to select 14 finalists from which a winner would be chosen by a panel of celebrity judges including controversial US documentary filmmaker Michael Moore (Goldberg 2004).

Today the group boasts over 5 million members and conducts major campaigns mostly on social issues (healthcare, social security, green issues etc). Its website and social media pages share millions of hours of political video advertisements, and it has raised over \$138 million since its inception, mostly from small donations averaging \$40-50 (MoveOn 2012). While the organization is clearly left-leaning, and has contributed resources to Democrat campaigns, it is officially non-partisan. Members and ‘friends’ are not required to commit to a manifesto of policies, and are free to contribute donate, share and volunteer on an issue-by-issue basis. Most recently MoveOn has launched an online petition tool called *Sign-On* which allows individuals to set up their own petition to campaign for causes within their local communities (Eng 2012). Bruns argues that much as in the same way that Citizen journalism has begun to undermine the gate-keeping role of traditional journalism, so groups like MoveOn are “shifting the pressure points of the political system” (Bruns 2009: 369). In particular he argues that the projects of such forms of organization must be seen as

“Inherently unfinished [opening] the pathway to a political structure in which there are constant, small, granular, incremental, evolutionary changes to policies and political change rather than lengthy periods of limited change punctuated by political paradigm shifts” (Bruns 2009: 367).

Although unique in its organization the evolution of MoveOn does not seem to suggest a radical break with the existing mechanisms of representative democracy in the United States. While extremely tech-savvy the group seeks to influence politics in conventional ways by lobbying, petitioning, running campaign advertisements and donating to progressive causes and candidates.

5 CBS would reject the ad stating that it was too controversial. Nevertheless it was broadcast on CNN during the half-time break in the Superbowl and it also went viral on several video sharing websites including Youtube.

It seems therefore premature to argue as Bruns does that the example of Wikipedia, Facebook and MoveOn points to the development of non-representational forms of deliberative democracy. Indeed early in its history MoveOn did launch an online discussion forum designed to allow users to address complex policy issues and potentially provide a useful mechanism through which the future agenda of MoveOn as a whole could be set by its supporters and members. Rather than a simple discussion forum MoveOn incorporated a rating system that would allow members to rank the comments they respected the most. This they believed would encourage civility, compromise and dialogue which accompanied by the requirement that users had to provide real names, addresses, and emails, would mitigate for accusatory, explicit and inflammatory posts since much as reputation confers status on Ebay, the ability to agree with, and rank comments, would confer status based upon proven merit as a contributor. In contrast however the forum became notorious for a growing tirade of anti-Semitism, anti-Israeli and anti-Bush diatribes which eventually led to the suspension of the forum in 2006/7 (Washington Times 2006).

Another case that raises questions about how political activity will evolve on the social networks is the example of *Americans Elect*. Again ostensibly a non-partisan non-profit organization, *Americans Elect* was founded in April 2010 with the goal of using online media to nominate a ticket for the 2012 US Presidential election (Romano 2011). Touted as a participatory and deliberative exercise ordinary US voters are able to register as delegates, choose the candidates for an online national primary and decide the key issues that the top six candidates must engage with as they are eventually whittled down in successive rounds of voting. *Americans Elect's* goal is not to create a 'traditional' 3rd party but instead to nominate a non-partisan candidate in a manner that is not reliant on ties to existing political parties, political organizations or lobby groups. While the ticket is open to candidates associated with existing political parties, in order to ensure non-partisanship *Americans Elect's* rules require that if the winner is a Republican or Democrat that they must select a Vice Presidential running mate from the opposing party.

As of February 2012 *Americans Elect* by collecting almost 2.5 million signatures had succeeded in gaining ballot status in 15 states and had raised over \$22 million. While receiving favorable coverage in several major US print media outlets, and glowing praise from among others New York Times columnist and author Thomas Freidman, critics argue that the whole process is much less deliberative and participatory than it first appears. The group was started with a \$1.55 million donation from Peter Ackerman (Vogel/Phillip 2012), the organization's chairman, who made his millions as a financier for Drexel Burnham Lambert in the 1980s, a company that was forced into bankruptcy in 1990 as a result of illegal activities in the junk bond market (Foroohar 2012). Since then the bulk of the \$22 million that Ameri-

cans Elect has raised has come from a small group of 55 anonymous donors who have given in excess of \$100,000 each. Fuelling concerns about the transparency of this process is the fact that while the organization was initially registered as a tax-exempt political organization, in October 2010 it changed its designation to a social welfare organization. The switch (from a 527 group to a 501(c)(4)) enables the organization to legally withhold the identity of its donors. Further concerns surround the nomination process itself. Although the public will be able to nominate candidates the organization itself will ‘appoint’ an independent committee to certify and ‘vet’ the candidates. While Thomas Freidman (2011) may have proclaimed in July 2011 that Americans Elect would “remove the barriers to real competition, flatten the incumbents and let the people in” the lack of financial disclosure, the mechanism for the selection process, and links to controversial consulting company Arno Political Consultants raise concerns that the whole project may be less an example of grassroots pressure for change than an attempt by conventional advocates and lobbyists to ‘astroturf’ – to give the appearance of a bottom-up movement.

The future of political action and participation then remains, at this juncture, unclear. Clearly the development of social media do lower the of costs collective action and facilitate new forms of political action and mobilization. Equally it does have the potential to be both used and abused by governments, corporations and traditional lobby groups. Perhaps then it is best not to look at the development of any new politics as being either top-down (invited space) or bottom-up (invented space) but something more complex, interconnected and dialectical (see Kersting in this volume). As Leighninger, (2006: 226) observes,

“[c]itizens and officials are becoming frustrated with each other, *and* trying to find new ways to work together... The ripples are extending far beyond local politics, into the realms of the media, the Internet, Presidential campaigns and foreign policy. It may be a little misleading to call this an “evolution” of democracy since that implies we are moving inevitably toward some better, more advanced realm of public life... [but] at the beginning of the twenty-first century, it is different in a lot of places.”

3.8 Conclusion

While it is too early to deliver a conclusive assessment of the overall political impact of the social networking, the evidence to date suggests that they are playing a crucial role in broadening participation. Furthermore if we define democratization as a dynamic process that recognizes and includes the ways in which democratic norms, institutions, and practices are disseminated, as well as a process in which the aggregation of public opinion serves to chal-

lenge and level existing hierarchies, then we can also argue that the social media also have clear democratizing effects.

In addition social networks are changing the notion of voters as merely an inert audience that exercises its democratic muscles infrequently. As both the Arab Spring and the Occupy movements separately demonstrate the evidence from the use of social media during the late 2000s across both the developed and developing world certainly points to a citizenry that is becoming more active, creative and innovative in political life. There are also signs of enhanced deliberation and participation though it is also too early to determine whether these will fundamentally reshape the 'industrial-era' model of representative democracy.

Academic scholarship often struggles to keep pace with the rapid development and diffusion of technological changes. Given the developments we have witnessed in the last decade it would not be surprising to find that the same is true for this chapter. To conclude then I will tentatively speculate on what might happen next. Prior to the emergence of social media applications, programs and tools commentators differentiated between the 'real' world and the 'online' world, which was commonly referred to as cyberspace. This conception (popularized in Science Fiction) conceived of the two as clearly demarcated 'spaces' with users 'escaping' the real world to enter a 'virtual reality' online. Today the term cyberspace has largely disappeared as the division between reality and virtual reality has blurred. As Scholz and Hartzog (2008) point out "we are facing the death of cyberspace ... [with] the whole offline/online distinction ... less useful as a framing metaphor". Instead what we are seeing is "the information world ... layered onto the physical world" (Scholz and Hartzog 2008). In other words, rather than the Internet being a separate and separated world, today Internet-enabled devices have proliferated to such an extent that they have become ubiquitous. With GPS systems in cars, televisions that connect to the Internet by wifi, game stations that also allow users to stream movies and connect to social networks, and applications in smartphones that allow users to search based on pictures taken by cameras built-in to the handsets we now increasingly talk of augmenting reality rather than of an alternate reality. Indeed the subsequent iterations of the Internet may indeed result in the 'disappearance' of the computer. As Mark Weiser commented in 1991, "The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it." (Weiser 1991: 94-104). This disappearance refers both to the minaturization of devices and their integration into everyday artefacts, as well as mental disappearance as we begin to no longer discern the artefacts that connect to the Internet as computers. As Streitz and Nixon (2005) argue "the rate at which computers disappear will be matched by the rate at which information technology will increasingly permeate our environment and determine our lives" (33). We currently stand on the cusp of this further transformation, a moment that already is being referred to as marking

the evolution of the Internet towards higher mobility (cloud). One can only begin to imagine what the social and political impact of this iteration will be.

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4. Electronic political campaigning

Andrea Römmele

Does your Member of Parliament tweet about his/her work and passion for your constituency? Is there an online platform that connects childcare institutions in your neighborhood? Chances are that you might find all those things to be true for the community you live in. However, there are questions remaining. Do you follow your MP on Twitter, or would you rather rely on your local newspaper to tell you about his/her political record? Do you look for childcare online, or would you rather ask your neighbor or colleague if they had any advice on the matter?

It might be hard to answer these questions for many people since modern media usage is all about mixing and matching what best suits your lifestyle, your budget, and your needs. This notwithstanding, the story of the omnipresence of the internet prevails. Experts of all kinds argue that the internet is soon to become the dominant media, outnumbering the classic media like television, radio, and newspapers. Accordingly, it seems to be increasingly important for everybody who wants to get attention to go online – and this seems to be true for parties and politicians, companies and lobbyists, NGOs and activists alike. If spreading your message is the goal, social media seems to be the means through which you can achieve it. But, why so?

This paper aims at providing an overview of the operating principles of social media, their potential for campaigns¹, and the related communicative challenges. The introductory part outlines basic mechanisms and shows how the e-factor might or might not shape modern campaigning. In the following chapters different types of e-campaigns will be examined. Taking a look at the spheres of politics and civil society – instead of focusing on one of them – seems especially important since modern campaigning techniques emerge in all different parts of society. Business campaigns cannot be analysed here, but experiences are included in the analysis of political actors. In the era of the Cold War, which is often seen as the beginning of modern politics, new

1 Election campaigns are the prototype situation of political communication (Pfetsch/Schmitt-Beck 1994) – we see the interaction between the actors involved in a very exposed manner. Key to this definition is that political actors (media, parties, candidates, citizens, NGOs) do not communicate differently in off-campaign times.

campaigning strategies were typically developed by corporate advertising and marketing specialists, and got adapted by political parties, non-profit organizations and the like (O'Shaughnessy 1990). Nowadays, however, the causal chain is not as simple any more. Oftentimes, political strategies find their way into the corporate world (see e.g. the issue of personalization, Bretschneider/Vollbracht 2011) while it is difficult to even establish the origins of many campaigning techniques (cf. the idea of guerilla marketing, Levinson 1984).

In order to systematically analyze the use, potential, and limitations of e-campaigning, both spheres mentioned above will be examined using survey data as well as case studies. The last part of the paper includes concluding remarks as well as a brief outlook.

On a general level, the rationale of social media comprises three key factors: *targeting*, *virality* and *responsiveness/interactivity*. Targeting means that, contrary to mass media like television, social media can be used to identify distinct target groups and send them tailored messages. This technique has first been developed in the political sphere in the mid-1990ies when Bill Clinton was the first presidential candidate to address certain audiences such as the famous "soccer moms" (Penn 2007). This being said, the potential effect of targeted campaigning has multiplied since. People are constantly organizing and reorganizing themselves online which helps campaigners to identify the groups they are looking for.

Virality means that social media allows a proliferation of information cascades. Within these groups – which can consist of people following a certain blogs, visiting certain websites, interacting in facebook groups or in chatrooms, to name just a few – a special dynamic kicks in: people are not only addressed by messages, ads and all sorts of information, but actively share these pieces giving them even more attention. The concept of *virality* is key to many campaigns and ads are explicitly designed to get shared and, thus, "go viral" (Berger/Milkman 2009).

Responsiveness and *interactivity* focuses on the ability of social media to allow *one-to-one communication* but also *one-to-many communication* and *many-to-many communication*. So, from a campaigner's perspective social media allow for new ways of addressing target groups and they create a certain kind of buzz themselves. In addition to that, they also enable recipients to close the circle of social communication by sending feedback and interact with the sender of the message who, in turn, can respond to questions, criticism, appraisal etc (Smith 2010).

This matters for all the spheres mentioned above: politics and civil society (for corporate and business communication, see e.g. Mangold/Faulds 2009), since they all share fundamental principles of communication which lead to certain criteria for modern campaigning. These criteria include, but are not limited to: organization, mobilization, professionalization, personalization, and crisis communication. All of these topics will be closely looked

at throughout this paper in order to determine the power of the “e-factor”. What does the possibility (and need) to use targeted, viral, and responsive communication do to professional standards? How does it affect the way in which politicians or CEOs deal with crises? Is there a new way of mobilizing people to engage in civil society movements – and, if so, do these new ways appeal to new participants?

Before tackling these questions, however, we must establish the arena we are dealing with. Much has been said and written about the “digital divide”, for instance (see Kersting in this volume; Norris 2002). The question that follows from this thesis is this: Are we ready for e-campaigning (and an ICT-oriented lifestyle in general) or will more traditional ways of political advertising still be dominant throughout the next years due to limited Internet access or limited online literacy or flat-out skepticism towards the quality of online information among citizens?

4.1 E-readiness

It is difficult to determine if, or to what extent respectively, a society is ready for means of e-campaigning (see Kersting in this volume). Many variables are important in this regard and they all can play out very differently within different cultural contexts. The shape of the media system as such, for instance, plays a crucial role. In the liberal systems of the Anglo-Saxon type, the reception of alternative news sources such as the social media might differ considerably from the way they are perceived in the corporatist systems of Northern Europe or the pluralist polarized ones of Southern Europe (Hallin/Mancini 2004; Swanson/Mancini 1996). Thus, the preliminary analysis of e-readiness will take into account all three types.

The first question one should address is the one that has been mentioned above: Is there a digital divide? Data² from the European Social Survey show a mixed picture with Northern European countries and the UK being a little more advanced regarding both access and usage than Southern European countries (European Social Survey 2009).

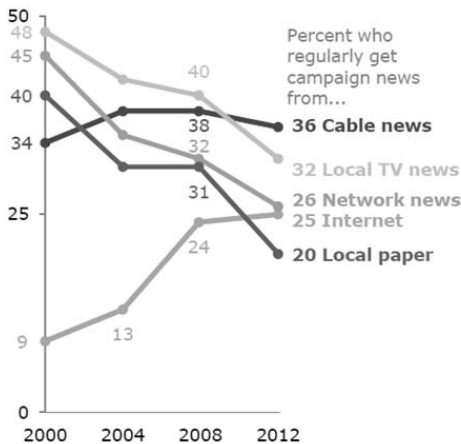
According to Hallin and Mancini (2004: 11), the orientation of the media towards either a political or market-oriented logic is key to the distinction of the three media systems mentioned here. While liberal systems tend to be market-oriented, corporatist systems historically developed a co-existence of

2 It should be mentioned that there is a general caveat to consider when using data on media-related issues: Since the access to new media spreads fast while thorough scientific analysis deserves a lot of time, datasets like the ones used in the study mentioned here can be out-dated almost right after publication. Nevertheless, they may give us an idea about a country's relative performance in comparison with its peers.

commercial and political media, and the media in systems of the pluralist polarized type lean towards a political rationale.

Given the fact that most of the up-and-coming social media mentioned so far are private rather than public or affiliated with political parties, there seems to be strong evidence, that a look at the liberal media system might be especially promising. With regard to political campaigning, the PEW institute asks respondents about their preferred news sources on a regular basis, and the latest results are quite telling: while most “traditional” news sources strongly lost influence among citizens, the Internet could not considerably increase its share either. It hence seems as if the internet is not capable of filling the huge gap emerging from the decline of the traditional media’s importance.

Campaign News Sources: Internet, Cable Flat, Others Decline



PEW RESEARCH CENTER Jan. 4-8, 2012.

<http://www.people-press.org/files/legacy-pdf/2012%20Communicating%20Release.pdf>

So far we looked at two components of “e-readiness”, access and usage. All in all, the data shows that the new ICTs have not lived up to their full potential, yet. While Internet access is quite high – and keeps improving – and numbers of members of social media platforms increase day by day, usage with regard to campaigns develops rather slowly. This is all the more reason for a close-up investigation of the theory and practice of e-campaigning which is presented in the following chapters.

4.2 E-campaigning and political parties

Campaign research was under-developed for a long time. In 1987, Harrop and Miller stated: “The study of election campaigns, as opposed to elections, is a major gap in the literature” (Harrop/Miller 1987: 240). The major reasons campaigns were not researched and gained little academic attention is because they had little or no effect. Two factors account for this:

1. *On the macro-level*, election results can be predicted from a small set of variables (incumbency, duration in office, satisfaction with government) (Gschwend/Norpoth 2000).
2. *On the micro-level*, party identification and voters’ predispositions made election outcomes predictable and campaigns were seen as a purely mobilizing exercise.

However, these forecast models have failed a number of times. In addition, we observe decreasing party identification in almost all established democracies and an actual decrease in party membership (Dalton et al. 2011, Mair/van Biezen 2001), combined with a high level of voter volatility. Following the Ann Arbor Model, a decrease in party identification puts more emphasis on issues and candidates having an influence on electoral behavior. Issues and candidates are communicated in campaigns and as a consequence thereof, campaigns have become more and more important and – of course – are now a subject of the social sciences. Campaigns have been considered in electoral research, party research, and communication research, but it was only in the early 1990s, with campaigns gaining in importance, that the true sub-discipline of campaign research emerged at the interface of these above-mentioned research fields, fuelling a new sub-field of social scientific research that unites formal election studies, parties, and political communication scholars.

An attempt was made to describe different campaign types from a historical perspective with the emphasis on change. In the first or pre-modern campaign era (1920-1945), political communication was based on the strength of the local party organization and face-to-face contact. Such a strategy presupposed citizens’ extreme willingness to participate in organizations, as well as the existence of intact and socially homogeneous groups. The orientation of parties to their electorate is one of nearly lifelong loyalty. Hence, in this campaign era, parties need to mobilize their people. The second wave of campaigning, in contrast, saw a shift from communication via the party organization to mass media communication between parties and voters. “During the post-war era, political campaigning has been transformed by the decline of direct linkages between citizens and parties and the rise of mediated linkages” (Norris et al. 1999: 22). Citizens do not receive their information directly from party meetings or rallies, but through the mass media. With the mass media, parties can communicate their message to a broader audience.

Because party identification and party attachment have declined, parties not only have to mobilize their electorate, they also have to convince the undecided voters of their party program. With the party organization, more and more power is shifted to the party headquarters, which assumes responsibility for overall campaign strategy (Gibson/Römmele 2001: 32f).

Over the past two decades, a new mode of election campaigning has emerged in post-industrial democracies. Key traits of the professionalized campaign include the use of new communication tools, such as the Internet and email, along with intensive use of direct mail, telemarketing, opinion polls, and focus groups to better target potential voters. A growing body of literature has developed on changes to political campaigning with varying terms being used to capture the changes such as ‘Americanization’, ‘post-modern campaigning’, and ‘professionalized campaigning’ (Norris 2000; Römmele 2005). Increasingly, such accounts have included reference to the role of new information and communications technologies (ICTs) and social media in campaigns (Chadwick/Howard 2009; Gibson/Römmele 2009).

What are the key characteristics of professionalized campaigning? Organizationally, national party leaders and staff, along with external media advisors, have become increasingly important in driving the campaign (Negrine/Papathanassopoulos 1996; Norris 2000). These changes in campaign operation have led some political scientists to question professionalization’s democratic effects, arguing that it may be responsible for the increasing disaffection displayed by electorates around the world. As parties and other political actors become more reliant on technology, and begin to function more as commercial entities driven by ‘consumer’ or voter demands, it becomes harder for them to sustain their grass-roots support and linkage to civil society (Lilleker 2005; Franklin 2004). These and other studies have revealed some interesting insights into the causes or incentives for parties to adopt professionalization and its consequences for these organizations and voters, particularly with regard to the use of new ICTs. This renewed emphasis on voter canvassing, combined with the use of new technologies for identifying and reaching out to potential supporters, can mobilize people and thus strengthen the links between parties and voters that have been weakened over the last few decades. This development appears to have emerged in the 2004 US presidential primaries, when candidates began actively involving supporters in their campaigns by means of new ICTs (Trippi 2004).

4.2.1 ICTs and campaigning

ICTs as a new campaign medium were discussed in various ways and dimensions. From a party’s perspective, one can differentiate its usage according to the key functions political parties have in established democracies, namely

opinion formation, interest mediation and organization of elections (Römmele 2003: 9f)³.

Opinion formation

New ICTs offer political actors direct contact with citizens and thereby an advantage over existing media. Parties are able to control the content and “dosage” of political information that they emit via the Internet and so can offer unfiltered information to the public and also to more specific target groups. This is particularly useful for smaller and less established parties, parties that do not receive much attention, do not have a high newsworthiness-factor for the media, and have a difficult time obtaining the financial means necessary for direct mailing and telemarketing. In the early days of the Internet, parties were largely content to put advertising material on the Web, with websites serving as a broad information board for citizens as well as journalists. Much of the information provided on the homepages of parties was taken from the parties’ standard, official material, e.g. the party charters and the party history (Löfgen 2000: 63). While retaining some of these more basic characteristics, many party sites have moved on to offer more of an “online magazine” with news updates and personalizing options. Most parties now have “political web portals” which serve as a broad entry point for users into politics online. These activities lie in the hand of party and campaign headquarters and are to fit the overall campaign strategy. Although it has clear participatory elements it can by and large be seen as a top-down information tool with the media being its main target (Harrison 2000).

Interest mediation

The strongest hope at the very beginning of the ICT-discussion certainly was that political participation via the Internet would gradually bring more people into the democratic process, a process believed to be particularly important for groups currently disengaged from politics and from political discussion, i.e. the younger generation. Some scholars put forward a “mobilization hypothesis:” these new forms of participation via new ICTs would widen the pool of political participants. Others were more pessimistic and stood for the so called “reinforcement thesis,” putting forward the argument that those who are already participating in politics also do so via ICTs. This notion was based on the evidence about the role of the Internet in US elections (Bimber

3 The web campaign literature can easily be related to the functionary distinctions we have shown to be discussed in party research. In their monograph on web campaigning, Foot/Schneider (2006) distinguish between the Web being used for informing; involving, and connecting. Informing is seen as “foundational to and part of all other Web practices. In other words, all online structures present information” (47). “We define Web Campaigning as those activities with political objectives that are manifested in, inscribed on, and enabled through the World Wide Web. Various actors engage in Web Campaigning in a range of sociopolitical contexts” (Foot/Schneider p. 4).

1998; Corrado 2000, Kamarck und Nye 1999). “Far from remaking American politics, the development of cyberspace and particularly of the World Wide Web, seems more likely to reinforce the status quo” (Margolis and Resnik 2000: 54). However, new ICTs were seen as a vehicle especially for small and minor parties, those not in parliament and hence not receiving as much media attention due to less newsworthiness, to present their views to the public. Pippa Norris (2003) demonstrates this for European parties on a broad empirical basis, noting the “widening of information available about minor and fringe parties, allowing them greater voice and visibility than coverage in traditional news media ... This is important in principle for communication pluralism and the preconditions for effective party competition.” (Norris 2003: 42f)

Organization tool

The new communication technology, of course, has also been discussed in relation to party organization. In the early days of new ICTs, they have been regarded as simplifying administrative processes, as told to more effectively coordinate different party branches and be able to “stay on message” through these new orchestrating tools. Above all, during election campaigns, the Internet constitutes a strategically important tool because not only is it an additional channel for the distribution of material and a medium for campaign management, it also enables region-wide mobilization of the active party base. For new parties in particular, such developments provide the means to building an organizational infrastructure that avoids the usual costs of regional headquarters and physical participation in the party organization.

4.2.2 (Old) mass media and news media – mediated versus unmediated news

The campaign typology, which very nicely presents a historical “tour de force” through campaign history, also describes the relationship between the media and the political actors (Römmele 2005). In the pre-modern campaign phase, the media was dependent on politics; very often media was even owned by politics. It was the political elite and the campaign headquarters that had full control over media content. This picture has changed in the modern campaign phase; the media grew into an actor of its own and we can observe semi-dependencies between media and politics. Whereas the media is dependent on access to and the content of politics, politics on the other hand is dependent on the media; they need good stories, good reporting, etc. In the era of professionalized campaigning, the media has more and more become an independent actor with its own interests in politics.

As Cappella and Jamieson describe the shift, “the Seventies and Eighties were a time of fundamental change in the distribution of media coverage

from issue-based stories to ones that emphasize who is ahead and behind, and the strategies and tactics of campaigning necessary to position a candidate to get ahead or stay ahead” (1997: 33). Today, by any standard, analysis of the candidates’ strategies and reports on the state of the horserace are the dominant themes in news coverage of campaigns.

“Against this backdrop, technology at least makes it possible for voters to bypass or supplement media treatment of the campaign and access information about the issues that affect them. Rather than waiting for news organizations to report on the policies they might care about, voters can take matters into their own hands and visit candidate websites to examine their positions on the issues. This form of motivated exposure is hardly an impediment to deliberation: paying attention to what the candidates have to say on the issues facilitates issue-oriented voting and paying attention to the media circus does not. Thus, there is some reason to hope that the spread of new forms of unmediated communication will eventually provide a better way to inform and engage voters” (Iyengar 2011: 7)

As mentioned earlier in this paper, the relationship between politics and the media also depends on the respective environment in a given society. As mentioned earlier Hallin and Mancini (2004) identify three types of media systems: the liberal, the corporatist, and the pluralist polarized. Modern campaigning as described above features “the horserace” rather than political issues, and tends to do so independently from any political or social actors. It thus could be argued that the environment of modern campaigns increasingly follows the logic of the Anglo-Saxon liberal model while the Northern and Southern European media systems incrementally adapt. Evidence for this hypothesis can be derived from two case studies from Northern and Southern Europe respectively.

In Germany, which can be seen as a representative of the corporatist model, the media’s new role as an actor rather than an arena became evident in course of the events leading to the resignation of former President Christian Wulff. Prior to this case, both supporting and opposing certain German politicians was rare among media such as newspapers and TV stations. They would rather focus on policy initiatives and feature the politicians behind the respective bills than endorsing candidates (which is very common in liberal media systems) or criticizing them on a personal level. There have been some exceptions to be true. Gerhard Schröder, the social democratic party’s front-runner in 1998 got endorsed by the magazine “Stern”, and German media in general, of course, always closely observed politicians’ actions and reported any potential misbehavior. Nevertheless, the degree of negative coverage of the former President’s business relations in early 2012 was extremely high given that his misdoings seemed rather small with none of them being confirmed as law violations at that point in time.

One of the reasons for the intense coverage of this case surely was that Mr Wulff held the highest office in the country. Another reason might have been that he attacked the media itself and even tried to intimidate journalists

in order to prevent stories about him from being published. However, on a more general note, the new media culture might have played a role, too. With new ICTs – and especially social media – a politician's personality became more visible. Hence, “liking” or “disliking” politicians on a personal level was not a matter of private opinion any more but became part of public discussions about political decisions and the respective decision-makers.

A few months prior to the German case, the Italian Prime Minister Silvio Berlusconi resigned in the course of the debt crisis which shook the whole Eurozone, but especially countries like Italy with a huge public debt. The resignation of Berlusconi was seen as the end of an era regarding the interplay of media and politics.⁴ In Italy, a media system of the southern type, media are closely related to politics and often serve as communication platforms of certain political parties or groups. It will surely take some time for this system to change – the more so since Berlusconi, as a politician and owner of a large media network, personally embodies a connection between politics and the media which might prevail another couple of years.

However, during the decline of the Berlusconi government, another development took place which might be just as telling regarding the new shape of the Italian media system. Comedian Beppe Grillo, who gained lots of attention through criticizing the Berlusconi government, founded a political party which gets most of its support through Grillo's website, <http://www.beppegrillo.it/>. Here, along with his fans, influential politicians endorse Grillo's agenda making his initiative (which started as comedy) a serious political contender. This again is more typical for liberal media systems where people like Michael Moore or Stephen Colbert regularly cross the borders between politics, business, the media, comedy, and the arts, than it is for systems of the Southern European type.

Sure enough, none of the events described above were caused by the media alone. However, they both show steps towards a new self-image of the media in those countries. At the same time, with social media entering the market, there seems to be evidence that the more traditional media try to turn to their new challengers by adapting some of their techniques such as the “I like”-culture introduced by Facebook.

4.2.3 From tool to strategy?

Without a doubt, the social media have the potential to empower citizen-driven campaigning and to challenge or even shift the campaign-power map from party headquarters to citizens. The term citizen-driven campaigning was generated from the observation of the new web-enabled participatory prac-

4 Provided that Mr Berlusconi will not have managed a successful comeback by the time this paper is published.

tices the social networks offer, but of course also implies activities that are not necessarily new (like political discussion, contacting, donating, etc.) and can be performed offline. However, the key difference to party campaigning is that citizens themselves take the initiative to engage in a political campaign, to spread the word themselves, producing a new, more self-directing, spontaneous, and socially embedded (rather than institutionally/organizationally driven) layer of political action during a campaign (see also Gibson 2009). In contrast, party-driven campaigning is initiated and conducted by party organizations rather than party members.

The mother of citizen-driven online campaigns is surely Howard Dean's primary campaign in 2003/04. Although he was not nominated by the Democratic Party, his rise from unknown governor of a small northeastern state to front-runner status in the primaries marked for many a "coming of age" story of the Internet as a political medium. Central to his campaign and the campaign success were the "Dean for America" blog and email lists, which, according to its national director Joe Trippi, were critical in personalizing relationships with supporters and developing a sense of joint-ownership of the Dean candidacy. The Obama campaign in 2008 was the first campaign operating in the social media era and "took it to new and dizzying heights" (Gibson 2009: 292). The key characteristic of Obama's campaign surely was the widening of the campaign's organizational base to encompass a host of ordinary citizens through the new forms of social media.

First empirical results on the role of social media in election campaigns in the 2009 German federal election give us an overall estimate on the potential impact of this new medium (Römmele/Einwiller 2012) How many citizens actually read campaign material through this channel and how many actively post campaign information on these platforms? And what social determinants predict citizen-driven campaign activity?

Do parties/campaign headquarters face a loss of (power and message) control, given that the use of social media is on a remarkably high level, and steadily increasing? The findings can be summarized as follows:

- 15% of the electorate read campaign material on the social media at least once a week.
- With 4% of the voting population, the number of citizen-driven campaigners is still limited. However, they originate from a different social group than citizens engaging in party-campaigning: citizen-driven campaigning is conducted by young people (education is not a predictor) with a strong party identification.
- A key characteristic of those young campaigners is outreach. They are connected to a heterogeneous environment and serve as so-called "bridging hubs." Therefore, they are ideal ambassadors to broaden one's political base.

Against this background, some preliminary conclusions can be drawn. Party-oriented participation is likely to further decline in the next few years, while citizen-driven campaigning could increase. Hence, parties have to think of ways to activate supporting citizens and include their activities in the overall campaign strategy. This, however, could be quite difficult to implement, as citizen-driven campaigners operate in heterogeneous environments, which are quite different from the homogeneous scene a party provides.

Nevertheless, parties could benefit from further reaching out to the online world not only regarding external support but also in terms of their internal democratic culture. While operating in homogeneous environments, party-driven campaigners may lose touch with the outside world and could be prone to the phenomenon of “groupthink,” i.e. supporting the party program and candidates’ views without questioning them (Janis 1972). In this regard, connections to online forums, where issues of all kinds are discussed most controversially, could add to the party’s ability to respond to certain trends and demands instead of simply staying on (the same) messages.

This said, however, one should not forget that social media is a brand new player in the political arena, which has so far not proven to be a sustainable source of political support. There is a fair chance that the social media scene turns out to be too dependent on short-term trends to serve as a reliable sounding board. Moreover, the online community has developed stances toward certain political issues like internal security and consumer protection that are not necessarily shared by the majority of the population. Hence, the dynamics of agenda setting and opinion making within social media requires further research in order to estimate their value for professionalized campaigning.

4.2.4 New media and the personalization of politics

Personalization of politics has been a highly debated issue over the last twenty years – not only in the context of campaigns. This development is normally judged negatively; individuals and grandstanding would displace content and substance. In this debate, three aspects of personalization are to be distinguished: first, the personalization of the campaign strategy – i.e. the focus of the party on its top candidate. Second, the personalization of media reporting on politics – i.e. personalization via the mass media. And thirdly, the personalization of the voting behavior – i.e. the impact of personalization on the behavior of recipients.

Such assumptions may be popular – but the personalization of politics cannot be detected in all aspects of campaigning and is often less dramatic than claimed. Parties have always concentrated on the best candidates in the election – so this is certainly not a new phenomenon. Of course the extent of this form of personalization varies depending on the political system (person-

alization is clearly more strongly developed in presidential systems as in parliamentary systems) and of course it also varies from election to election. Yet a dramatic increase in overall personalization cannot be claimed (Brettschneider 2010: 134).

However, the personalization of media reporting is clearly increasing – media reporting thus focuses more on candidates than on parties. Römmele (2005) empirically demonstrates that it is above all an increase in media reporting on ministers, as well as the shadow cabinet, rather than an increase in reporting on the main candidates. Election research has clearly empirically shown that despite the personalization of media reporting, the decision of voters, now as before, remains tied to long-term identification with a party – rather than to an isolated assessment of the candidate (e.g. Brettschneider 2010; Franklin 2004).

With the rise of new ICTs, parties and other political actors were able to escape the logic of the media; while above all television was focused on individuals, i.e. on personalized communications, it was now possible through new media to directly put forth and make accessible stronger content, supporting information, and arguments. But more and more, personalization was entering communications through new media. In the age of Web 1.0, candidates had their own homepage, in which home stories, etc. increased in importance.

As was just put forward, in the age of Web 1.0, information stood in the foreground. The media and interested citizens were thought to be able to access a more comprehensive and above all more personalized picture of the candidates. In the era of social media, in which dialogue and communications of the supporters play decisive roles, personalization has an additional implication: now, not only the candidate is important, but also those who spread information about the candidate and his or her campaign within their personal network – the so-called citizen driven campaigning, also alluded to above. Here, campaigners very often function as opinion leaders.

The concept of opinion leaders (and the two-step flow of communication) was first developed by Lazarsfeld et al. (1944). It is a micro-concept emphasizing the importance of the opinion of trustworthy persons in the formation of one's own opinions. The trusted others are often characterized as opinion leaders, since to a certain degree they determine the development of others' opinions. One can also attempt to identify opinion leaders from the responses of others (Klingemann/Römmele 2001), as opinion leadership is based on "soft power" which requires a certain degree of conviction among followers. In the words of Joseph Nye, "soft power relies on the ability to shape the preferences of others to want what you want" (Nye 2009: 319). He further argues that making others want what you want by means of conviction and attraction may even turn them into "entrepreneurs" who actively spread the word themselves. Besides that, studies on organizational management point out positive effects of "inspirational leadership" on the commitment of others and, thus, process ef-

fectiveness (Bass 1993; Gill 2006). In sum, “inspired” opinion leaders may have an enormous impact on campaign dynamics.

The question empirical research has addressed is: in what kind of environments do these opinion leaders actually communicate? Do they communicate in groups with a wide variety of ideological perspectives, i.e. in *heterogeneous networks*? Or are they at the center of *homogenous networks* of people who share similar perspectives? This relates to the ongoing discussion on the bridging and bonding role of online communities (Norris 2002) and has its roots in Putnam’s discussion on bridging and bonding groups. In Putnam’s words (2000), “bridging social capital refers to social networks that bring together people of different sorts, and bonding social capital brings together people of a similar sort [...]”. And, secondly, can we make a statement about the role these citizen-driven campaigners play within their networks? The preliminary results for Germany, the USA, and Canada show a clear trend towards heterogeneous networks, i.e. citizen-driven campaigning via social media has an outreach into societal groups that traditional party-driven campaigning does not have.

4.3 E-Campaigning and civil society

Civil society might be the most diverse sphere (compared to politics and business) when it comes to e-campaigning. There is a huge variety of actors ranging from independent activists to highly professionalized lobby groups. Accordingly, their resources and toolkits vary as well as their strategic goals, and discussions about the success criteria of NGOs and potential trade-offs have been going on for many years (Miller 1994). While grassroots movements mostly care about the activation and mobilization of supporters, NGOs and pressure groups also try to lobby decision-makers on a professional level that might be detached from their groundwork.

However, one general principle remains: public support is the most important resource for a civil society movement’s legitimacy and, thus, is essential for all their operations. So, in terms of campaigning, the big question is how to generate visible support, i.e. getting citizens to participate. Two examples illustrate that the future of civil society campaigning might be a mix of offline and online activism.

4.3.1 Citizens taking to the street I: The German “wutbürger”

To estimate the extent and power of civil society campaigning in the digital age, let’s start with a case from Germany – a country that is usually seen as rather satisfied with its (representative) political system.

In 2010, German civil society was on the move. A type of citizen that has existed for many years is, all of the sudden, receiving attention: the “*wutbürger*” (“angry citizen”). They first publicly appeared to protest against a far-reaching school reform in the city-state of Hamburg (<http://www.wir-wollenlernen.de/>), then showed up in Bavaria, where they urged the government to strengthen the existing law to protect non-smokers (<http://www.nichtraucherschutz-bayern.de/>), and had their most important appearance in Stuttgart opposing the plan to expand the city’s railway network and move the central station underground (<http://www.kopfbahnhof-21.de/>). It was during this protest against that the term “*wutbürger*” was coined. It has since made its way into German dictionaries, and the German Language Society named it the word of the year in 2010.

What is newsworthy about the phenomenon is not the fact that they protest, but rather their attitude towards protesting and the way in which they organize. Contrary to other activist groups, the initiatives mentioned above do not stem from cleavages that have shaped the German political discourse for decades. One of the most prominent examples of the latter would be the debates on the use on nuclear power or on a general minimum wage. These demands have been closely connected to certain political camps right from the start and were either pushed forward by established actors like parties or unions, or developed some kind of institutional framework on their own. The issue of nuclear energy was even key to the birth of a new party, the Greens. As of today, all these movements have an agenda and an ideology which goes beyond the policy measures they protest for.

The *wutbürger* however do not pursue any overarching goal or mission. They rather feel that pointing to shortcomings in policy making is one of their civic duties. Accordingly, they acknowledge that the government’s scope is limited, and try to offer feasible alternatives along with their criticism. This notwithstanding, the crucial question remains: when – and how – did their activism turn into a phenomenon? One possible explanation goes as follows: the increasing number of protests and the intensity of the arguments led to widespread media coverage, and “*wutbürger*” is therefore merely a term coined by the media. However, there have been intense and well-covered protests before. So how could the new *wutbürger* movements attract a broad range of citizens which exceeds the groups who have been involved with traditional NGO or party politics before?

Social media seems to be key to understanding this phenomenon. All the movements mentioned above offered people to participate online and offline in order to include as many people as possible. This helped these initiatives – all of which were regional issues rather than national ones – to travel around the country and to gain support among people living hundreds of miles away from the actual site of the railway project. Moreover, participation as such was a major goal, and awareness was created for the fact that citizens want to actively engage in shaping their living conditions.

Meanwhile, political leaders acknowledging these efforts have begun to offer ways for citizens to give input on certain topics. In the case of the Stuttgart railway project, citizens even had the chance to state their arguments face-to-face with politicians, in sessions broadcasted on national television. So, above all, the movement of the “*wutbürger*” led to substantial changes in the way governments think about participation.

This, in turn, led to a referendum and a majority of voters backed the original plan. The anti-Stuttgart 21 coalition has partially dissolved, with some of the activists returning to the streets after their televised mediation, while others accepted the settlement. This clearly shows that a huge presence online and in the streets is not necessarily representing an actual majority of the population.

4.3.2 Citizens taking to the street II: The Occupy Movement in the US

It is not easy to tell the story of the Occupy movement, since no one can precisely pinpoint where it all began. In July 2011, an independent, anti-consumerist group called “Adbusters” came up with an idea, and since the Internet is the medium of the day, they sent it out via emails and tweets tagged “occupywallstreet.” The group however, was not responsible for the movement that followed: independent activists created a website and spread the word even before Adbusters could follow up on their own idea. At one point, September 17 was suggested as the official starting date, since this was Constitution Day, an American federal observance. Sure enough, many people showed up in Zucotti Park, a small area in New York’s financial district, making this the first day of a movement that has since travelled across the globe.

In the beginning, there were no leaders but only a few random people helping to organize the event. And even though the movement became quite well structured, connected, and organized, there is still no real leadership in place. There are powerful online platforms like MoveOn.org, but they again serve as facilitators rather than guides or leaders – the more so since Occupiers repeatedly claimed that moveon.org should not try to co-opt the movement but let it develop independently. This is the typical story of social movements in the digital age: they are not initiated by anyone. They simply emerge.

Right from the start, social media was key to the success of the movement. All relevant information was distributed online, everything they said or did was up for discussion via platforms like Facebook, Twitter, etc. So, in contrast to many other existing social movements, which step by step discovered social media as a means for their actions (activation, mobilization, etc.), the Occupy movement is truly shaped by its medium: the social media are part of Occupy’s DNA.

This does not mean, of course, that Occupy would not include offline activities. On the contrary: they adapted the toolkit of earlier movements in many ways. People in Zucotti Park and elsewhere often felt reminded of the Civil Rights Movement: there were sit-ins, teach-ins, sing-alongs. Some people camped out, others donated food, clothes, or sleeping bags. Everything within the camp was shared among all, nothing was charged for. So basically, the flower power movement of the '60s is also part of Occupy's DNA.

This is not to say that all occupiers were hippies. Nor were they all techie, nerds, and geeks. But at some point these two lifestyles merged and contributed to a rather unique movement with one major goal: raising awareness. The addressing of some major economic issues, especially income inequality, is what will be commemorated in history books. The slogan "We are the 99%" was a brilliant way to frame the fact that the top one per cent of the population has gathered an enormous share of the country's wealth.

This has been a major irritation to many, to be certain. Given that the United States always considered itself to be the country of unlimited opportunities, the idea of structural inequality, "glass ceilings," and other obstacles that systematically deprive certain people of their chance to make a living on their own came as a shock. Even among supporters of the movement there was no real consensus on this diagnosis and they certainly did not agree on how to combat the crisis.

Here, again, the very nature of the movement prevented it from getting torn apart. Occupy Wall Street, as well as all of its international sister movements, was – and still is – not about solutions, but about questions. The Internet, especially social media, made it possible for everybody to participate and, thus, feel included. In contrast to many other movements, which have clear demands ("no war!", "stop the use of nuclear energy!", "free Ai Weiwei," etc.), people of the Occupy movement simply shared concerns and were keen on discussing them and making them visible among society, politics, and corporations. This is the Internet's strong suit: fostering exchange, spreading ideas, connecting people. So, in the case of the Occupy movement, the medium and the message truly became one.

4.3.3 Civil society's e-factor

The two cases clearly show the potential and limitations of the e-factor in civil society campaigning. Once pushed forward by some sort of movement, the messages spread quickly and reached and involved many people through the means of virality and interaction.

This, however, does not mean that the audiences involved could represent the population. So even if the degree of public awareness might be simi-

lar, the buzz created through targeted messages is not comparable to the attention resulting from an event that affects the whole population.

Moreover, both cases show that offline groundwork is also essential and the case from Germany also indicates that traditional media also need to be involved to increase awareness. Hence, future e-campaigning activities need to be embedded in a broader communication strategy.

4.4 Conclusion

At the beginning of our chapter, we pointed towards the potential of e-campaigning. How well can politics, and civil society organizations use communication via www to target its messages? How viral are these campaigns and to what degree does social media enhance the responsiveness and the interactivity between senders and recipients? Those were key questions we posed and we were able to present some answers.

There is empirical evidence that these new communication tools are installed to target specific sub-audiences with tailored messages. We know that organizations use a different tone and spin in those messages, but the core position being communicated remains the same (Römmele 2005) – they are „on message“. However, chances are that recipients spread the message (“virality”) and/or give feedback to the sender (“interaction”). This matters to campaigners in two different ways: First of all, communication in the digital age is not a one way street. Consequently, every modern communication must not only include but essentially focus on what happens after a message has been sent out. How will people react, what kinds of feedback will you get, and who else will become aware of what you said? The potential and pitfalls of strategies which do or do not take this effect into account could be demonstrated by the examples of German ex-president Christian Wulff who incautiously threatened the media, and Beppe Grillo of Italy who transcended the borders between comedy and politics.

Secondly, these new ways of interaction might create a new type of public sphere. It has been argued before that television might lose its role as a leading news source, and recent studies find that among young adults this is already the case.⁵ The media landscape is likely to further diversify, making it actually more difficult for information to travel across different parts of society. This might bear the risk of segregation. The public sphere, in a Habermasian sense, defined as the realm for public discourse (Habermas 1989), is likely to split up into an indefinite number of smaller arenas where like-minded people meet.

5 <http://www.people-press.org/2011/01/04/internet-gains-on-television-as-publics-main-news-source/>

On the bright side, however, social media enable organizations to reach into audiences they have little or no connection to in the offline world. Empirical research has clearly proven the “bridging character” of online communities – information and messages are communicated via citizen-campaigners into their respective networks. Parties could benefit from further reaching out to the online world not only regarding external support but also in terms of their internal democratic culture, while operating in the offline world only could make them prone to the phenomenon of “groupthink”, i.e. supporting the party program and candidates’ views without questioning them (Janis 1972). In this regard, connections to online forums where issues of all kinds are discussed most controversially could add to the party’s ability to respond to certain trends and demands instead of simply staying on (the same) messages in homogeneous environments, party-driven campaigners may lose touch with the outside world.

The multiplier-factor and outreach potential of viral campaigning is immense, however, especially when looking at civil society and the use of social media here it has shown that the medium and the message alone is not sufficient. At some point a clear structured organization and leadership are required to have sustainable impact.

This notwithstanding, the biggest challenge for organizations is the loss of control over both the message itself and the direction in which it is communicated. Without a doubt, social media has the potential to reshuffle the campaign power map from party or corporate headquarters to citizens. As a consequence it seems almost impossible to frame a message in a way which truly reaches and appeals to groups as diverse as television viewers back in the 1980s and 1990s. Back then, TV access was highly developed in most modern societies while the number of options (i.e., channels) was still limited, making TV the ideal campaign medium of that time. As of today, it seems unlikely that any other media channel will have an outreach comparable to TV regarding both, the pure numbers and the diversity of its audience.

This is backed by the important observation that despite their high level of public support, social movements like the wutbürger or Occupy were not necessarily backed by a majority of the population. This distinction between visible and actual support might be among the most crucial ones that will frame the discussion about e-campaigning. And it might be the very reason why, even five years from now, many grocery stores or local politicians or neighborhood initiatives will still not be available via social media.

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5. Open government and open data

Stephanie Wojcik

In recent years, face-to-face participatory instruments have become more and more popular as an object of study in the social sciences. This is because they are considered to possess the potential to renew existing modes of public action and to further the legitimization of those political systems within which they are applied. Participatory instruments intend to establish environments for inclusion and dialogue to enable higher levels of citizen participation. Research on their origin and functioning is ongoing and has already yielded very interesting information on possibilities and limits. Many such studies have been in response to questions raised with respect to forms of political awareness, citizen participation and their effects on public action (Blondiaux 2008; Bacqué/Sintomer 2011). In the same vein, the use of digital participation – whether initiated by public authorities or the citizens, collectively or individually – has attracted a great deal of academic attention.

“The role the Internet plays as a watchdog, and an instrument of dissemination and of mobilization (circulation of information and an increase in online petitioning) is becoming more and more central in the functioning of democracy...” (Haegel 2009: 52).

Normalization or mobilization

However, an increasing number of studies now question the links between political participation and the Internet, based on an interpretation of its potential benefits and the reality of how people use it. Different approaches have examined the links between off-line and multiple forms of online political participation.

Normalization, examined in a study by Margolis and Resnick (2000), posits that the Internet in fact mostly mobilizes people who are already politically active off-line (Norris 2003). Furthermore, following a logic already identified (although disputed) in the sociology of media, which says that a person selects from all available information according to her pre-existing

personal interests, the politically active Internet user would then tend to frequent only online sites where she can interact with people who share the same opinion. Thus, far from favoring confrontation between a diversity of opinions, these online discussions do no more than reinforce the initial convictions of the participants (Sunstein 2001). This polarization of opinions is particularly problematic as it leads to a “balkanization of the political discourse” (Flichy 2008: 168). In an even more radical version, the public sphere could simply disappear because of the exponential increase of individual discourses, more often juxtaposed than interconnected.

The second approach, called mobilization, considers that the Internet lowers the cost of participating and can thus be useful for all those whose family or professional constraints do not allow for civic engagement in its usual traditional and time-bound forms. Furthermore, through research engines, discussion forums and the diverse applications that the social web offers, the Internet allows people with common interests to interact beyond their usual and inevitably restrained social circles (family, friends, colleagues etc.). It can thus facilitate mobilization and would seem to be particularly efficient for the defense of specific causes, such as anti-war movements, or world causes, such as climate-warming.

Lastly, certain researchers are less concerned by electronic participation in itself than by the social dynamic changes that it is presumed to reveal (Vedel/Ward 2006; Barboni/Treille 2010). We could consider these practices as a sort of field of experimentation intended for a better comprehension of new trends. For example, political engagement seems to be characterized today by distanced practices: militants seem to be less inclined to make a long-term commitment to political groups that function in a traditional way (section meetings, public meetings, flyer distribution during campaigns etc.). New, more fluid, ephemeral practices of political engagement have become possible via the Internet, and they allow the user to express his ideological preferences more freely (sign an online petition, become friends with a candidate on Facebook etc.).

These three approaches are still more or less the framework for current research, but they are being re-evaluated or refined (Wright 2010) according to the different evolutions and the diversification of digital forms of expression or collaboration (Proulx/Millerand 2010). Thus, while in 2006 Ward and Vedel concluded that, on the whole, empirical studies confirmed the idea of normalization, by 2009 the general consensus seemed to be emerging that the Internet had small but nevertheless positive effects on political engagement (Boulianne 2009). Depending on the user, certain possibilities such as online voting lead to modulating the intensity of their effects (Hirzalla et al. 2011).

One potentially negative impact of information and communication technologies on democratic practice refers to a return to an authentic, direct democracy in which traditional representative organizations would be overshadowed by a direct connection between political leaders and the citizens.

This would be the advent of a surveillance society in which citizens are submitted to social control (see the critique in Chambat 2003). There have been several attempts to find theoretical correlations between democracy and the Internet, subsumed in the expression of electronic democracy (for example, Chadwick 2006; Fuchs 2007; Dahlberg 2011; Monnoyer-Smith 2011), to try to categorize the multiplicity of political experiences and practices that depend wholly or partly on information and communication technologies.

For example, Lincoln Dahlberg (2011) distinguishes four major concepts of electronic democracy: liberal-individualist; deliberative; the counter-public; and the Marxist-autonomist. These categories cannot be analyzed in detail here. Suffice to say that each of these depends on a different concept of democratic subjectivity as well as the kind of democracy at hand. Thus, for example, in the liberal-individualist concept of electronic democracy, digital technologies are simply an effective way to transmit information and viewpoints between individuals within the representative process of decision-making. The citizen is seen as a rational and calculating subject, who wants his own interests to be taken into consideration, although he can also act out of empathy and consideration for the needs of others.

Other authors have highlighted the main axes around which have been built the discourses and projects on electronic democracy. Thus, Thierry Vedel has highlighted three axes echoing one of the main difficulties of modern political systems: informing the citizen so as to make up for the lack of transparency in politics; debate and discussion to try to make up for the smallness or even closure of the public sphere; and public deliberation and decision-making to try to fight the phenomenon of cutting the citizen out of the decision-making process (Vedel 2003). In a very similar way, Rabia Karakayat Polat (2005) sees the Internet as a source of information, a communication medium and a virtual public sphere, and she examines the links with political participation in terms of these facets.

Other studies have also used this categorization (for example, Breindl 2010; Wojcik 2010) in order to criticize participatory instruments for institutional debate that are based exclusively on an orderly and linear approach to online participation (i.e. informing, debating, deciding), reinforced by an idealistic concept of “democracy as a rational space founded on the primacy of the discursive regime” (Allard/Blondeau 2009: 3).

The notion of electronic democracy refers to the idea of developing political participation through the electronic networks, for citizens to communicate either between themselves or with their representatives. Here, open government and open data play an important role: “Open government is seen here as a government strategy which includes citizen participation in the process of political decision making and which allows open access to public data to enhance transparency and to assist policy making processes. Open data strategies are defined here as the access to relevant government data and statistics under freedom of information acts” (see Kersting in this volume).

Open government and open data rely on an *invited space* where government allows broader information and participation. Depending on their degree of freedom, these initiatives can contribute to the autonomy and independence of the participatory instruments.

Thus we can find here a variety of initiatives, instruments, and practices, all dependent to a greater or lesser degree on the information and communication technologies used to further the democratic process of representation (Hacker/Van Dijk 2000). Also evident are the political experiences based on information and communication technologies, which allow people, either individually or collectively, to express themselves freely with no constraint from public authorities. This leads to a reshaping of the traditional public sphere (Cardon 2010).

Such a definition of electronic democracy obviously raises a broad question – how do the Internet practices used by both politico-administrative institutions and citizens lead to a re-examining of the mechanisms of production and appraisal of public decision-making and public action? Faced with the immensity of the theoretical field thus opened, our aim is, comparatively modest. In order to look at the question of online political participation, we propose an overview of the above-mentioned practices, which will highlight the different controversies raised by such practices in relation to the existing theories, specifically those in political science and the sociology of the media.

In an intentionally restricted way, two questions will structure this paper. Firstly, how does the production and mass dissemination of information by institutions, media, and citizens affect the functioning of democratic political regimes that encourage political participation in one way or another? Secondly, does the multiplicity of online public spaces that allow for self-expression and discussion, both initiated and used by individuals and perhaps belonging to the institutional sphere, lead to widening the role played by citizens in the definition of the political stakes and decisions that concern them?

5.1 Producing and disseminating information. Between public management and citizen empowerment

The discourses as well as the governmental practices that use ICT (Information and Communication Technologies) are based on the idea that “putting into circulation news (and not information), i.e. carefully constructed, selected and well thought-out data, has become a new imperative of good governance” (Lascombes 2001: 307). This imperative is a result of both an administrative need (public services need to be facilitated for users) and a need for greater ‘transparency’ in the activities and functioning of the state.

In France, following the 1978 Nora-Minc report (1978), the ICT (first the Minitel, then the Internet) were considered by the public authorities as a means to facilitate informing the public of government initiatives at different levels of the State activities. After 1994 and Gerard Thery's report on information highways, the digital networks began to interest politicians who very rapidly saw the potential uses of the ICT to combat administrative complexity. This interest can be seen in the multiplicity of reports that linked the dissemination of public data – collected by public agencies, – and modernizing of the state (Vedel/Wojcik 2008). Since 2008, public action for ICT seems to be clearly directed towards protecting producers of content and especially towards the potential economic profits these technologies can bring, with the creation of a Secretary of State for Prospectives and Development of the Digital Economy, directly under the control of the Prime Minister.

In short, whatever their political leaning, the successive governments all share the same preoccupations: extending electronic administration, protecting personal data, reducing the digital divide, using ICTs to develop the economy, while the theme of electronic democracy only raises very moderate public interest and appears first and foremost to be reduced to e-voting (Vedel/Wojcik 2008).

As a result, as well as all the laws and bills, parliamentary debates, official reports and speeches by government officials available on the specialized websites such as *vie-publique.fr* or *legifrance.fr*, most institutions, at whatever territorial level, have their own Internet website, with varied content concerning their functioning, mission and major public initiatives. To this content can be added all the information and practical services for the public, certain aspects of which also have their own specifically dedicated websites, run by the government (for example, *service-public.fr*, *impot.gouv.fr*). On a local level, in 2009, 84% of French cities had a website (99% in towns of more than 10 000 inhabitants, and 82% in smaller towns and villages), which shows a very large increase over the last few years¹.

The politico-administrative institutions can also set up websites dedicated to one or several sectors of activity that they deal with or that are aimed at a specific portion of the public. Furthermore, because of the diversification of access to the Internet, both institutions and authorities are developing mobile versions of their website content, as well as applications linked to general public services that are accessible from mobile terminals connected to the Internet² such as smartphones, and tablets.

To this now well-established presence of institutions on the Internet can be added an increasing use of the different applications, hubs and services (e.g. geo-localizing) now available on social networks. For example, out of

1 http://www.orange.com/fr_FR/collectivites/presence/partenaires/sondage.jsp

2 <http://www.proximamobile.fr/>

the fifteen ministries in the French Sarkozy government, six have a Twitter profile with a total of 11 accounts.

This official use of Internet technologies, particularly the applications available through social media that aim for greater transparency in state activities, can, in fact, lead to further blurring of the already tenuous borders between public information and communication of the politicians themselves. The political use of social media could accentuate the already visible aspects of a political communication that plays more and more on the levels of affect, of personalization or of proximity between the political leaders and the citizens. How else can we consider the Twitter account opened by Nicolas Sarkozy, not in his own name but in that of the Elysée, during the Copenhagen Summit (December 2009)? Such an account allowed for the relaying of official information about decisions taken, with the President's intentions and personal opinions being made clear without his name being attached directly to them.

The Open data movement: between accountability and public management

More profoundly, these evolutions on the technical modes and formats used to publicize government action question the status of the information itself and how it is used, with a two-fold intention to evaluate and assess the action taken by those who govern and the democratization in defining public choices. In this way, Barack Obama's *Transparency and Open Government* program combines transparency with the necessity for representatives to be accountable for their actions. It encourages citizens to participate in order to improve the efficiency and the quality of the decisions, in such a way that the decisions are founded on widely disseminated knowledge within the society, rather than on the expertise of a few top civil servants. Such a program is based principally on academic theories which underline the complex nature of the decision-making processes within a context of public action definitively placed under the sign of incertitude, particularly in the field of sciences and health. By mobilizing the possibilities of the digital networks, governments need to be able to take and include the knowledge and know-how of lay citizens, without their institutional or professional status becoming a criterion of evaluation for the relevance of their contribution. We have a model of this kind of cooperation and collaboration in the online encyclopedia Wikipedia (Noveck 2008). Such a program led to a multitude of initiatives, among which was the 'open data' policy, thanks to the implementation of the website www.data.gov, which made available to the public, in formats that facilitated their sharing and reuse, a selection of data produced by government agencies. This data had hitherto been kept in the agencies' computer, and could range from statistics produced by the federal health agency on the number of overweight people to data relative to the State budget. To make it

easier for the citizens, new forms of collaboration were set up between the government authorities and developers, engineers and open-source software designers. The idea was to supply, produce and create both applications and usability tools, such as those which allow a user to visualize large quantities of cartographical, graphic or statistical data and to link up data coming from different sources.

Whatever opinion we might have of the truly democratic or innovative nature of this program, it is nonetheless true that many diverse national and regional governing bodies around Europe (Spain, Denmark, Norway, The United Kingdom, etc.) have all opened up their data bases, using strategies that are more or less well defined (Huijboon/Van den Broek 2011) and within frameworks that are not always born of a true desire to promote a greater participation of citizens in public decision-making.

In France, since February 2011 the data website gouv.fr was set up through an inter-ministerial committee called Etalab. Until 2011 different public initiatives aiming to open up data bases came from a small group of local authorities, for example, the Rennes urban area. Rennes Metropole made public all the data of its public transport network Keolis, and its city centre, especially the services dealing with geographic information, and in particular the urban environment (e.g. the location of flowerbeds, parking meters or playgrounds). For the moment, the section called Citizenship only gives information on where to find the voting offices and the way the city is divided up into districts³. The aim is clearly to produce services for the users of public services and the improvement of the daily lives of city-dwellers, with, for example, the possibility for a Rennes resident, if he is connected, to be informed in real-time of the availability of self-service citybikes.

In fact, it is possible to see at work, in this movement of open data, evidence of one of the features of the neo-liberal, public management system i.e. the taking over by private providers (companies, developers, computer scientists) of public services, which could then become profit-making. Indeed, the raw data, whether it is statistical or geographic, does not, in itself, have any economic, social or political implication. Its economic value depends entirely on the applications to which it can give birth, and that can only be developed by those who have a certain level of technical skills in information, content or services. Companies such as Data publica can, as a result, benefit from public financing (Chausson 2011).

However, companies are not the only ones to make the most of the development opportunities that the open data policy has created. For very different reasons, private individuals or civil society organisations can also undertake to collect, compile, exploit and render visible data produced by public agencies. Organizations such as the Open Knowledge Foundation or My-Society in the UK, or LiberTIC or Regards Citoyens in France all work on

3 <http://www.data.rennes-metropole.fr/les-donnees/catalogue/>

collecting and displaying such data through a number of visualization procedures and techniques so as to make it available for political interpretation. We can thus find a number of vigilant citizens who watch government actions very closely. In other countries, such initiatives exist, particularly to publish the budgets of government authorities and especially to show the link between taxes paid by the tax-payers and the financing of different public initiatives <http://whatwepayfor.com/> (United States); <http://wheredoesmymoneygo.org/> (United Kingdom) – or to show where the funds come from that are used by political parties and candidates during election campaigns <http://www.followthemoney.org/> (United States). In France the best example of this vigilance can be seen on the website *nosdeputes.fr* which claims to be a citizen observatory of parliamentary activity. This site, created by *Regards Citoyens* and fed by volunteers, monitor the activities of French members of parliament. For each MP the site has graphs to show a set of data about his or her activity, such as the number of times he or she has attended Parliamentary sessions, the number of spoken or written questions he or she has asked, which projects s/he partakes in, and what parliamentary reports s/he has produced in a particular domain.

Even though the increased visibility of the behavior and choices of our representatives could lead to an assessment of their actions, it is possible to find, amongst the multitude of initiatives based on a desire for transparency in public affairs, a certain number of operations linked to raw data that have paradoxically weakened public confidence in the political system. Lawrence Lessig talks about projects intended to reveal the influence lobbies have on members of the American Congress, linking the money that Congressmen receive to the votes they make (Lessig 2009). He talks about the *maplight.org* report, which shows that, between 2003 and 2008, the Congressmen who contributed to watering down the extent of the climate bill all received an average of 37.700US\$ from the coal, gas and nuclear industries (Calhoun 2009). And yet, according to Lessig, it is difficult to prove that a financial contribution definitely played a decisive role in the deputy's vote, other possible factors automatically being lessened or eliminated by the juxtaposition and the link made with independent data. Furthermore, spending time denouncing the behavior of individual representatives means not spending this time making a bigger, overall criticism of the institutional system in place.

The general public: production and consumption of online information

Alongside the public information supplied by politico-administrative institutions and the production of news or analyses by professional journalists and experts, there is the recent phenomenon of information produced by citizens, amateurs, witnesses or simply members of the general public. In a completely spontaneous way, an individual can participate in the production and dis-

semination of images of events or phenomena that the media have left aside, or that public authorities have watered down or ignored.

These amateurs can look at such news items from a different angle. Beyond just disturbing traditional journalism they question the roles that it normally plays. If not a direct criticism of the established government, it is at least a different approach to the reported facts and discourses. These new practices make the Internet a field of experimentation on which alternatives to the most criticized media practices could be built. Examples encompass: *Ohmynews international* (<http://english.ohmynews.com>), a newspaper written by citizens, which was first launched in South Korea; Wikinews (<http://fr.wikinews.org/wiki/Accueil>); AgoraVox etc. These are examples of using the Web to cover themes that do not particularly interest the mainstream media, since it was created in order to give a voice to the anti-WTO protests in Seattle (Cardon/Granjon 2010). These platforms could be in the form of intermittent counter-expertise, such as websites and blogs used by individuals (such as Etienne Chouard and his very critical analysis of the European Constitutional Treaty, rejected by referendum in France, in 2005), or by civil society organisations. The Web abounds with all sorts of opportunities for self-expression in various forms (texts, video-streams, sounds, editing, mixing etc), and a part of which could consist of reacting, commenting, analyzing, criticizing and assessing the choices, decisions and behavior of public authorities. It offers increasingly superior possibilities compared to the broadcast media, of which certain programs that bring together political professionals and anonymous participants, have already contributed to a “wider definition of politics, beyond the categories, status and processes that we normally find in the institutional sphere” (Lefebure 2008: 72). Furthermore, the increasing appropriation of the Internet and particularly the different modes of communication that it allows and hosts within the population (social networks, etc.) leads us to more profound questioning of the role played by the digital media in the process of politicization of people (Dolez 2009). Political awareness refers here to the capacity of people to “maintain a practical interest for regular participation in activities that are specifically political” (Lagroye et al. 2002: 311). Such activities are not limited to those formally linked to the institutional or political sphere (voting, party membership etc). More precisely, the observations of the producers and consumers of political information online come face to face with the approaches of normalization and mobilization mentioned in part one of this paper.

Even if information practices online have definitely displaced the frontiers between the expertise and power of certain individuals such as journalists, consultants, editorialists and political leaders or public initiative agents to decide what is worthy of public attention or not, and the ‘amateur’ knowledge of the multitude of Internet users, we still need to admit that the hierarchies or inequalities in traditional media have not been eliminated. Firstly, new forms of collaboration have formed between the traditional gate-keepers

(journalists) and people or groups that originally intended to give either an alternative viewpoint to the one shown by the principle media or to give raw data to the general public, without any kind of commentary, which means that, once opened, it can be interpreted in many different ways by those who have access to it. For example, the written press can team up with those who practice data-journalism; the best example of this is, without a doubt, WikiLeaks, which gave a gripping image of the reality of fighting in Iraq, and the cost in human lives. Leaked data from the American Army is crossed with a map of the Iraqi territory, and all this information was displayed on the *Guardian* website (Rogers 2010).

Secondly, and from the normalization aspect, information exuberance goes hand in hand with a growing difficulty to find and organize relevant information, which seems to lead inevitably to a 'social divide' between citizens. In other words, those who are already motivated and interested in politics will benefit fully from the Internet as a resource for information but for those who have very low motivation, this gain is minimal, and they get very little from it (Delli-Carpini/Keeter 2003). In France, the 2009 survey by CEVIPOF and CARISM shows that the Web gives more resources and space for expression to those citizens who are already a part of the political system. The dominant role of television as the main medium for information for most of the population is linked with significant differences in the knowledge that people have on a particular item of political news⁴, depending on their socio-professional standing or their level of education. Thus, 62% of people with no diplomas use television as their primary news source, compared with 34% of people with higher education, who tend to seek information from other sources (including Internet). The examples given were the minaret referendum in Switzerland, the History and Geography reform in the final year of French high school education, and the new tax on bankers' bonuses in France.

Another study in 2009, although limited to a representative segment of the Breton population, showed that people with higher education are also those who make the most use of the services and information resources made available online by the public authorities. To give just one example, 69% of respondents had already looked for information on the administration's sites (Social Welfare benefits, Tax Office, municipalities etc), but there was a 37-point difference between those with and those without higher education diplomas (Tremembert 2010).

To confirm the idea of a social divide in people actively looking for information because of an unequal distribution of skills, whether that is objective or not, we can find a second idea, developed by Markus Prior (2007), which posits that the mass and digital media contribute to maintaining, or even increasing, civic apathy. If we go by declarations and statistics of the

4 <http://www.cevipof.com/fr/mediapolis/rapport/>

technical and political skills of Internet users, it is possible to underline, if necessary, the gap that exists between the reality and the feeling of incompetence that certain categories of the population have. As Hargittai and Shafer point out, “Some users – and our findings suggest these are more likely to be women – may not be looking for certain types of material on the Web because they do not think they would be successful. Consequently, women may be less likely to take advantage of online content that may improve their life chances such as enrollment in online courses, accessing government services or informing themselves about political candidates” (Hargittai/Shafer 2006: 16). According to Prior (2007), the fragmentation of the media, the fact that as well as the digital sources of information there is now an abundance of television channels that offer particular themes and a personalized content, allows people who prefer entertainment to choose to avoid exposure to any form of politics. If we also consider that people will filter the information in relation to their pre-existing interests, we can see that the fragmentation of the media is a sign of a new era of “minimal media effect” (Bennett/Iyengar 2008), which would not be favorable to the civic engagement of a very segmented public. This public would lack even a basic level of political knowledge.

Several studies, however, particularly those collected by Andrew Chadwick (2010) seem to contradict these theoretical proposals, and emphasize, *in contrary*, that the characteristics of online political information, its quantity, its richness, its relevance and its accessibility instead create a media environment that is beneficial to the acquisition of the knowledge and skills necessary to comprehend political stakes, and perhaps to go even further by participating in online political discussions (Mossberger et al. 2008: 47-66). This, as well as the kaleidoscope nature of online information – diffracted in different places in diverse forms – can help us to understand the flexible intensity of its effects on Internet users, in relation to their own personality and classic factors (such as age and gender), as well as their preferences for certain types of digital instruments rather than others. For the moment, a number of empirical studies, mostly carried out by American and British researchers and often during election campaigns, show that certain categories of the population that are traditionally considered as having a low interest in politics, particularly young people, tend to privilege the Internet as a means of finding information about their political representatives (Coleman/Spiller 2003). Pasek et al. (2009) showed that young people, more than other categories of the population, get more out of the political information they find while visiting and participating in certain social networks (Facebook rather than MySpace), which appeared in correlation to a stronger civic engagement in users than in non-users.

Whether they are examples, evaluations or counter-expertise, based or not on information and data produced by government instances or media, the different ways that citizens use digital technology for civic engagement seem

to echo the notion of counter-democracy as developed by Rosanvallon (2006). The Web would seem to be a privileged space for those represented to exercise a critical vigilance of their representatives and their actions. Once this is accepted, the possibility of rethinking the concept of representation opens up, and goes beyond the dichotomy between representative democracy and direct democracy, a dichotomy that was already present in the very early reflections on electronic democracy. Stephen Coleman and Jay G. Blumler (2009) put forward the notion of direct representation as a democratic system that rejects paternalistic methods of government inherited from the Welfare State. This direct representation goes beyond formal consultations on pre-established political agendas. It levels where citizens are no longer simply tolerated or patronized (see *invented space* Kersting in this volume). In fact it considers citizen as equals, and the politicians are permanently subjected to the exercise of accountability. From this perspective, ICT are no longer used simply as tools for voting or opinion polls or sporadic consultations, but to maintain a basis of permanent dialogue.

If we look at the increase in digital spaces of expressions, whether initiated by the institutional sphere or not, we could ask whether political choices are more open to participation and discussion with a greater number of citizens than before.

5.2 Expressing oneself and discussing online: between institutional reality and widening the public sphere

The question here is about giving tools to the traditional organizations of political representation and mediation, based on the principle that certain characteristics of online instruments allow categories of the population, hitherto considered as both disinterested in politics and yet capable of making the most of the digital advantages of participation, to express themselves. Because they can minimize the constraints of face-to-face participation, such as geographic distance, a lack of time or a fear of speaking out in public, online communication could allow those who do not dare to speak out face to face, to begin to express themselves (Gastil 2000; Witschge 2004). This is even more evident in the case of public meetings where the assemblies are mixed, i.e. made up of people of different hierarchical status or of very clearly established authority (Monnoyer-Smith 2011). And, for those from the institutional sphere, using digital tools is generally seen as a complement to the conditions of speaking out face to face.

Digitizing representation? Institutional projects and their limits

In a consultative manner, it is firstly about allowing freedom of expression or ideas on a subject that has been pre-defined by the public authority as being a subject of common interest or on a theme of public policies, using more and less well-established procedures, which could be a system of simple question-answer⁵ or just an idea box⁶, or an online questionnaire⁷, a ranking system or voting on a proposal in order to rank or weigh up preferences⁸ or perhaps a citizen panel⁹. More recently, and following the development of new functionalities linked particularly to cartography and geo-locating, instruments such as collaborative maps now allow the inhabitants of a town to share their ideas of urban development at a particular place or portion of urban territory that has been mapped and put online, and where just a click on the map shows the suggestion they would like to make.

Secondly, with the intention of co-elaborating proposals or political texts (perhaps even laws), different possibilities are currently observable. Some of them seem to be deliberative. The discussion forum is one of the oldest instruments, particularly on a local level (Wojcik 2003), and the earlier, somewhat basic versions soon gave way to more animated, moderated spaces, where the contributions were soon synthesized so as to grasp the principle ideas and themes that were in debate. For example, the public debate in 2003 on the *Avenir de l'École* organized by the Ministry of Education, where 24 forums were opened up to the public and 19 chat-programs were organized. The official intention was to allow citizens to participate in the drawing up of the recommendations to then be submitted to the government by the Commission in charge of the report (Moscarola et al. 2007). Because any newcomer to the discussion has great difficulty in getting his bearings among the huge number of contributions, as well as the now inevitable and enormous number of accompanying tags, forums can now be improved by modules or

5 In France, the public consultations on questions concerning territory development, led by the National Committee on Public Debate (CNDP), combine public meetings with different online participatory instruments: blogs, questions and answers, distance interaction during face-to-face meetings.

6 For example, the website for local democracy in the 3rd district in Paris: <http://www.democratieparis3.fr/boite-a-idees/>

7 In Bordeaux, the website <http://jeparticipe.bordeaux.fr/> which functions by membership allows inhabitants to reply to questionnaires on a number of municipal projects.

8 For the renewal of the members of the neighborhood councils, and in order to draw up a charter of their role and functioning, Lens (middle-size town in the North of France) asked the outgoing councilors to examine 90 proposals. They expressed the level of their support for each proposal using a voting system based on colors, green showing full agreement and red total disagreement. The physical meetings linked to the consultation proposals could then be organized around the ten or so subjects that were obviously a question of debate.

9 Since 2011, Issy-Les-Moulineaux (http://survey.newpanel.com/gkws/cgi-bin/issy_sit/cgi.pl); since June 2010, Valenciennes (<http://www.valenciennes.fr/fr/minisites/vie-municipale/votre-mairie/panel-citoyen.html>)

software that allow for visualization of the principal themes of the debate or its hot topics, as well as their commentaries. All this becomes, thanks to graphs and diagrams, much more readable than the classic piling-up of contributions, one after another, that we could observe in the early versions of discussion forums. Furthermore, voting systems on certain contributions developed progressively. They can be marked simply by a preference marker, which allows the most popular postings to be the most visible, thus establishing a ranking or presentation of the postings that is neither chronological nor decided by the moderators, but that is based on choices made by the contributors and readers themselves. Or the voting could also be part of a wider procedure, where the proposals that received the most votes could, for example, lead to initiating face-to-face discussions (Wojcik 2011). Public authorities interested in treating proposals or utterances can also use Wiki type software or modules for development projects or to write up documents used in the functioning of certain organizations (for example, writing up the consultation charter for Paris on Wiki, an experiment in April and May 2009).

Finally, citizens can also express collective demands through *online petition* systems promoted by governments, parliamentary assemblies, local authorities, or political leaders themselves.

In Britain at the local level a number of cities such as Bristol used e-petitions (see Baldersheim/Kersting 2012). In France, only Paris, among all the local authorities, offers a system of e-petitioning: <http://www.paris.fr/politiques/participez/lancez-et-signez-une-petition/p9130>.

On the national level, e-petitions legislative debates are no longer initiated by parliamentary MPs or ministers' initiatives (according to the political system in place) but by the citizens themselves. One of the most comprehensive of such experiments was launched in 2006 in collaboration between the British government and an open-source project launched by UK Citizens Online Democracy, a group founded in 1996 to explore ways in which the Internet could be utilized to allow people to become informed about politics and more engaged with the political process. The project produced the No 10. Petitions website, which between 2006 and 2010 (when the pilot was ended) was one of the largest non-partisan democracy sites by volume of users ever, with over 12 million signatures from over 5 million unique email addresses, approximating 10 per cent of the UK population (MySociety, 2011; <http://petitions.number10.gov.uk/>). The single largest petition during the pilot occurred in 2007 when over one million signatures were collected for a petition that directly challenged a key plank of the then Labor government's plan to introduce road pricing to reduce congestion in the UK (BBC, 2007). In August 2011 a new version of the petitions website was introduced in Britain which for the first time outlined a mechanism whereby a petitioner receiving more than 100,000 signatures could result in parliamentary time being tabled for a debate on the issue (Guardian Professional 2011). In Britain there has been a swathe of petitions calling for the restoration of the death penalty,

stricter controls on immigration, and the withdrawal of the UK from the European Union.

As a frontrunner and kind of best practice the Scottish Parliament set up a system of electronic petitioning¹⁰, run by a parliamentary commission ad hoc (the Commission of Public Petitions) who select the petitions likely to lead to a decision or to a public policy. It allows one to visualize the petition text, to read all the accompanying relevant information, to join an incorporated discussion forum, and thus to add commentaries to the petition under consideration. It also allows the MPs to use an analysis of the geographic distribution of the petitioners to see how many of their own voters have signed the petition. Furthermore, a summary of the discussion forum highlights the main arguments for and against. This system, which can lead to the amendment of texts under discussion and the revision of policies in use, has been adopted in 2008 by other parliaments such as the Welsh Assembly (<http://www.assemblywales.org/gethome/e-petitions.htm>).

The Scottish system has also been adopted by other countries. Online petitioning was tried from September 2005 in the German Parliament (<https://epetitionen.bundestag.de>) and was assessed in 2007. The system continues today (see Jungherr / Jürgens, 2010).

Following suit, in September 2011 the Obama administration in the United States launched a platform that similarly allows ordinary Americans to create and sign petitions on the White House web server. Petitions that collect 25,000 or more signatures within 30 days will be reviewed by the Administration and an official response will be issued (Snider 2011). In the United States, initial guidelines that a petition would warrant a response once it received 5000 signatures was revised after 12,000 people signed a petition in October 2011 asking for the White House to reveal whether it had contact with extra-terrestrials (Moskowitz 2011). Other current examples that have generated responses cover topics as diverse as: legalization of marijuana (Hill 2011); pet homelessness; ensuring the humane treatment of horses; food safety of raw milk; changes to US coinage; the NASA space program; Student Debt; the official motto of the United States; gay marriage; the Keystone oil pipeline; and working to conserve and sustainably manage shark populations!

Critics of such measures raise many objections (Snider 2011). Firstly they argue that the process is far from a deliberative exercise. Most such e-petition websites represent little more than a public relations exercise by governments to appear to be more responsive to its citizenry. The sites are instigated, managed and moderated by government bureaucrats; the process of review is at best opaque, at worst arbitrary; and responses are often little more than an opportunity for governments to tout their achievements or to

10 <http://epetitions.scottish.parliament.uk/> based on the generic model: <http://www.e-petitioner.org.uk/>

proclaim that they have ‘noted’ the public’s concern. Other criticisms point to the fact that a large number of such petitions are often at best for frivolous causes and at worst for nationalistic, populist or extremist policies.

Moreover, certain instruments try to *digitize* the whole decision making process for example, electronic participatory budgeting instruments (see Kersting 2008). A participatory budget allows citizens who are not elected to participate in the conception or distribution of public finances. For it to be truly a participatory budget, the budget and/or financial aspect must be discussed openly and include the whole town. It must also be repeated regularly and include certain forms of public deliberation or specific forums, and it must lead to feed-back on the results of the discussions (Sintomer et al. 2008). Although generally confined to the informative aspect of any process, such digitization can also affect the more crucial aspects, such as the deliberative dimension. For example, Hamburg in Germany invited its citizens to make proposals online using a budget-planning software program combined with discussion forums (Lührs et al. 2009). A further example would be Belo Horizonte in Brazil, which has a system that is largely dependent on online voting intended to rank priorities (Peixoto 2008) or Parma in Italy where, over a pre-determined period of time, the inhabitants can participate in two decisions, one related to a neighborhood project and one related to a project that concerns the entire urban development plan¹¹. Such initiatives, hybrid in nature because they combine face-to-face situations with one or several of the above-mentioned digital participation, have greatly multiplied recently. However, although they are instigated by different public authorities, their impact on the real decision-making is often very difficult to evaluate accurately (Tournadre-Plancq 2010). In spite of their often low decision-making nature, one of the most important effects of digital instruments designed to favor discussions between Internet users is the acquisition by the participants of knowledge on the debated subject (Talpin/Wojcik 2010).

Nevertheless, two different types of criticism are generally aimed at these tools. Firstly, that they generally cannot mobilize people who are not already present in the normal consultation procedures, and they are struggling to become a permanent fixture among the different means of participation. Secondly, those that go beyond being simply a means of expression are, nevertheless, based on a limited concept of discussion in the sense that they try, in vain, to (re-)produce the same conditions as the production of a rational, well-argued and respectful discourse. In doing so, they probably exclude categories of the population that do not master these forms of expression. Considering the vast number of virtual spaces and formats that Internet users use to express themselves, they could perhaps ‘talk politics’ more often in

11 <http://www.bilanciopartecipativo.comune.parma.it/progetti/vota.asp>

spaces normally used for leisure activities than in spaces institutionally intended for politics (Wojcieszak/Mutz 2009).

Thus, different conceptualizations have been found to try to grasp what happens online in these spaces that authorize self-expression, speaking out publicly, and exchanging views, that are created or used by individual people, and that could be dependent on politico-administrative authorities or not. We come back to these different conceptualizations and the problems that they raise regarding the question of political participation, in particular the permanent tension we find between the promise of inclusion that certain instruments offer and the deliberative quality that many consider as an unreachable objective.

Beyond the divide of deliberation and fragmentation

Online discussions are frequently analyzed using Jürgen Habermas's deliberative model, which quite naturally leads to incorrect conclusions. Schematically, digital spaces do not allow for a deliberative ideal, based on a reasoned exchange of arguments, that will lead to a consensual position of all the participants, who are considered as equals (for a summary of these studies, see Greffet/Wojcik 2008). Already criticized outside of any operational practices, the Habermasian theory is particularly incapable of accounting for the plurality of experiences on the Web. Certain authors suggest amendments to the deliberative theory, and emphasize the fundamental contradictions between participation and deliberation (Cohen/Fung 2004; Mutz 2006). According to Wright (2010: 229), we need to consider online discussions in a more flexible manner, for example, by exploring the mechanisms that partially make up deliberation (Kies 2010; Gonzalez-Bailon et al. 2010). In a more radical version, and if we look at the characteristics of political expression online, particularly the material characteristics, we can see that such a viewpoint obviously leads us to taking into account all the forms of expression that go beyond the rational-critical discourse theorized by Habermas (Monnoyer-Smith 2011), forms which are less socially and culturally demanding and which make way for emotions. We see the arrival of a series of studies on the emergence on the Web of counterpublics. This can materialize through, for example, e-petitions and 'flashmobs' – gatherings of people in a particular place kept secret until the last moment, and co-ordinated by text messages. Zizi Papacharissi (2002) estimates that online debating constitutes different public spheres that co-exist and form counterpublics, to use Nancy Fraser's expression (1990), rather than resembling the conceptualization given by Habermas. They, in fact, form mini public spheres that serve different interests and collective preoccupations.

The underlying criticism of Habermas's work is double. Firstly, contrary to what most of the research on electronic democracy seems to be saying, deliberation is not necessarily a value in itself, and secondly, the production of a

common good can take place through channels or contexts other than deliberative ones. This literature has recently been supported by a renewal in the interest for analyzing the digital practices of ordinary sociability (Arnaud/Guionnet 2005). Such practices seem to have been left aside by researchers who have been obsessed with tracking any major shifts in the functioning of representative political systems. Such shifts are probably induced by the digitalization of some or most of the relationships maintained by the politicians and the citizens. Thus, Lance Bennett considers that it is dangerous to pay too much attention to government-implemented electronic democracy projects, as, in fact, the traditional representation systems (unions, political parties and governments) simply adapt technologies to suit their particular projects and already-existing agendas (Bennett 2003 quoted by Coleman/Blumler 2009: 116). So, perhaps we should not look for deliberation (in the Habermasian sense of the word) where it cannot be found. Neither should we consider that what is not deliberative is necessarily conceptual rubbish. The majority of what is said on the Web is, in fact, not deliberative but could nevertheless have political effect (Dahlberg 2007). Thus, as Josiane Jouët points out, new modes of civic expression have appeared, characterized by a mix of private conversation and public speeches and discourses, which combine all the multimedia resources of the Web, i.e. textual, sound and video content (Jouët 2009: 70-71). This new ecology of words can be seen in multiple spaces or in both static and dynamic online instruments where the public nature (in the sense of what concerns the general interest) of a discourse is no longer indexed on its visibility, and vice versa (Cardon 2010). Nevertheless, there is still the main problem of the disconnection between the informal public sphere, made up of 'culturally mobilized publics' (Habermas quoted by Cohen/Fung 2004: 29), supported by activists, and the decisions that are actually taken by the legislative body, administrative agencies, and/or political authorities.

So, two different perspectives are possible. One insists on the framework, context, and configuration of the instruments that house the discussions, while the other that sees the Web as a space for the confrontation between differing opinions. The first perspective considers that, irreducibly, the bridges between political interests and people's preferences and values can be built only within protected institutional spaces, designed specifically to facilitate deliberations transversally (Coleman et Blumler 2009: 136), or at least certain of their characteristics. Such a position does not, however, contradict the results of observing online communities that are not tied to any institution, and yet who can clearly be considered as instrumental, as we can see in the analysis of the forum *Slashdot* by Gonzales-Bailon et al. (2010), where the authors were partly motivated by the desire to find ways to evaluate and *redesign* government projects.

Thus, studies on the procedures of face-to-face debating emphasize the importance of framing the discussion, meaning its thematic, the formal rules that govern the debate and also the materiality of the procedure, for example

the symbolic use of the space within a public meeting. Concerning online debates, the software chosen and the type of interaction that it allows, the nature of the moderation used and the appropriation of the interface by the users (Wright/Street 2007; Bonaccorsi/Julliard 2010) play an equally important role in the extent to which a participant gets involved and the way that he or she expresses him or herself, and even the repertory of arguments that he/she puts forward (Cappella et al. 2002; Desquinabo 2009). Furthermore, considering the materiality of the tools used by Internet users to express themselves implies paying more attention to the facilitators of the debate, especially when the site has been initiated by a public authority, and to the very central role that these facilitators play in the dynamics of the discussions within such channels (Wojcik 2007).

In parallel, the appropriation of the materiality of these procedures by individual users opens up the possibility of diverting them, for example by contesting their actual functioning or by using them in ways not intended by the site-designers or by refusing to submit to the themes and word formats initially imposed by the site-organizers (Monnoyer-Smith 2011; Wojcik 2011). Thus, the configuration of the instrument obviously affects both the nature of the debate, whether it is deliberative, conflictual or polarized etc., and which different publics would be likely to participate. Let's take one of these publics, for example, young people, whose relationship with online politics is a subject of study for both public authorities and academic research. The regular surveys on the range of Internet within French society always highlight their familiarity with the ICT (for example text messages on their cell phones) and other diverse applications of the social network. In 2009, in France, almost 16 million Internet users were members of at least one social network (15,9 millions) (Facebook, MySpace, etc.). The members of a community website are principally young people, even if this trend is changing. The under-35s represent around two thirds of the members (62.9%) although they represent less than half the total number of Internet users (45,8%) ; this is even more obvious in the 16-24 age group (29,2% of members although they are only 18,1% of all Internet users) and to a lesser extent the 25-34 age group (25,3% for 19% of Internet users) (see Médiamétrie, « Les internautes toujours plus fidèles aux sites communautaires », 18 August 2009).

The screen culture, an expression first used ten years ago to describe to what extent technology plays a very important role in youth culture, is often linked to a context where screens affect the relationship that adolescents have with culture and the written word, and it brings important modifications in the way that the sociability of young people/teenagers is structured. In a similar way to sociability, the civic engagement of these *generation x*, *generation y*, and digital natives also seem to be affected by screen culture, which leads, for instance, to a lesser interest in television or the written press. This civic engagement is embodied in a large range of practices that are characterized by expressiveness and/or creativity. To illustrate this, the enquiry that we car-

ried out on the website concerning the participatory budget for French high schools (BPL), set up by the Poitou-Charentes region, underlines the fundamentally different approaches to digital media of the politicians, adults or young high-school students who participated. The regional authorities created a website that does not truly fulfill its mission as an information-giver to the high-school audience that it wants to address and who, in fact, makes very little use of the possibilities for expression that the site offers. The somewhat limited use made of the website by the high-school students is linked to their general lack of interest in the BPL plan as a whole, and probably more to their own forms of politicization and civil and political engagement as well as to the lack of coherence between the face-to-face procedures and the website. These practices are also partly dependent on the diverging expectations about the functionalities that a website must offer if it is to provoke or increase the interest in politics of adults or young people. For instance, while half of the adult participants wish to receive the minutes of the meetings by email, this functionality is much less important for high-school students who are primarily interested in the possibility of voting online for projects (Wojcik 2010).

The second perspective leads us to a more thorough exploration of one of the conditions of deliberation, i.e. the confrontation between individuals with antagonistic viewpoints (Manin 1985), and its degree of reality on the Web. Thus, certain researchers have tried to determine to what extent Internet users find themselves confronted with differing opinions. Does the Web allow for a plurality of conflicting viewpoints, and do Internet users find themselves truly exposed to them? Until recently, people tending to frequent spaces online where they can discuss with people who have the same ideology has been the dominant orientation. It is supported by the works of Cass Sunstein (2001), using studies on social psychology and based empirically on studies of the political blogs used during election campaigns in the United States (Adamic/Glance 2005) or in France (Fouetillou 2008). This theme is further reinforced by the technical functioning of the Web, as Manin and Lev-On (2006) have stated, and particularly by the search engines (Hindman 2009). In this way, a series of mechanisms have been highlighted, such as the semantic logic that governs requests formulated on the search engines, which then directs the user towards blogs or websites that share the same vocabulary and the same way of formulating questions, or, and this is beyond any technical dimension, the fact that the links of one website send users to other websites that belong to the same ideological universe (Vedel 2008).

A contrario, other studies have shown that participants find a social and geographic diversity, a heterogeneity of profiles and viewpoints in the Internet discussions that they would have more difficulty finding offline (Stromer-Galley 2003). Recently, and seeing the diversification of online activities, it is possible to be exposed accidentally to politics, thanks to certain instruments, such as Facebook, which mix information on people's private lives as well as on their opinions of the political sphere (Bode 2010 quoted by Chad-

wick 2010). Furthermore, a recent study has shown that ‘ideological segregation’ online is less strong than it would be in face-to-face interacting (Gentzkow/Shapiro 2010). Internet users spend more time visiting websites than they do interacting with people who have different viewpoints from their own.

These controversies on the more or less adequate character of the models and counter-models of deliberation and the contribution made by Internet on the fragmentation, (based on either an information bulb or on ideological segregation), of the public sphere, have been widely discussed in a plethora of scientific studies. Today, such studies are attempting to take the question beyond these controversies. Considering that the approaches to online political discussions have focalized almost exclusively on either a restrictive conception of deliberation or on conceptualizations of multiple mini-spheres with characteristics that are difficult to generalize, Deen Freelon (2010) proposes a different way to analyze these approaches, by identifying three distinct models of democratic communication that they could refer to. According to Dahlgren (2005) it is no longer a question of knowing that the Internet can support democracy in the singular, but to see how the social practices based on the different uses of the Internet can support the multiple forms of democratic communication, and which members of the public actually participate. Consequently, it is necessary to break up the Web into a range of activities that can take place within an online environment, and which is more complex than that of a unidirectional medium such as television (Chadwick 2010).

5.3 Conclusion

The political and social practices of the Internet invite us to question both the possible reconfigurations of the different principles that make up democratic regimes, i.e. the principles of representation, participation, competition and limiting power, and the reality of the opportunities offered to citizens to make themselves heard.

The imperative for transparency that we are witnessing in almost all western governments can be seen in the varying uses of the information and communication technologies in order to spread public information and data through a vast number of websites and a progressive use of the different applications in the social media. The availability online of an almost infinite and sometimes anarchic quantity of information was motivated in France, in the beginning at least, more by a desire to modernize the administration agencies and to render a service to users than by the intention of giving information resources to a public that would then participate in decision-making processes. This availability has led to new modes of appropriation by internet users, modes that the political and administrative authorities can neither foresee nor control. Thus, the re-using of ‘official’ information or raw

data by individual people or collective groups confirms the idea of a renewal of the forms of vigilance of government activities. Such initiatives might seem to come from individuals or groups that are already politically active, or at least who have a certain degree of familiarity with politics, and yet we can also see the development of different forms of Web engagement by internet users, which could range from simple dissemination of political content to the mini-mobilization of different audiences that had previously been non-receptive to institutional politics. These initiatives may be difficult to grasp with the existing categories of political participation in the 'physical' world, but they are, nevertheless, proof of shifts between the roles and knowledge of the different protagonists of the political and media arena, such as political leaders, journalists, experts and citizens.

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6. Electronic voting

Thad Hall

When the Internet came into mass use with the advent of the easy-to-use browser, there were immediate thoughts that the Internet could become the big idea that would change democracy.¹ The premise here was simple: the Internet would connect people at a new level and spread information in revolutionary ways. And, in fact, the Internet has lived up to most of its initial hype. The connections that people make through social media – from Twitter to Facebook to Google+ to blogs – are changing the ways in which people connect with other people, as well as how they share and get information. Many corporations, for example, have discovered the power of “mommy bloggers” (Lopez 2009) in shaping how people view products and shop. A good word from these moms on their blogs can make a product while a negative review can break one. These social media exist alongside and complement the traditional websites that have always provided the backbone of the Internet.

In the area of elections and voting, the Internet has also been seen as a tool for revolutionizing democracy. In addition to the information dissemination that can be done through websites and social media, the Internet has been viewed as creating an opportunity to lower the cost of voting to almost nothing. In an Internet voting world, a voter would be able to gather information at almost zero cost from the Internet and then cast a ballot from the privacy of their own home, at the time of their convenience, with the information that they may need to cast an informed ballot right in front of them. On the Internet, there would be no more voting at a polling place – one could be an active, participatory citizen without having to trudge outside when it is cold or snowy or raining.

The theory of Internet as revolutionizing politics has come to fruition in many ways. The Internet has created new opportunities for organizing voters – using simple tools like meetup.com or twitter – and for communicating information using websites, youtube.com, and social media. In countries where

1 I thank Lucy Williams, graduate student in the Law and Political Science Department at the University of California, Los Angeles, for her contributions.

the public can contribute money to political campaigns and political parties online, the Internet has proved an easy and effective method for fundraising. It has changed the media as well, with reporters now often posting updates to stories multiple times over the course of the day and bringing the 24-hour news cycle to the print media. Thanks to the internet, campaigns have had to change the way that they communicate to the public, using multiple media to put out and then reinforce messages during campaign season.

However, when it comes to voting, the transition to Internet voting has been quite slow. Although there have been trials in numerous countries around the world to test the efficacy of Internet voting in their elections, only one country – Estonia – has adopted Internet voting as a part of their regular voting processes and procedures. There are several reasons why Internet voting has not been adopted more broadly, including legal and technological barriers to its adoption in some countries and a broader concern about the security associated with voting on the Internet. At the same time, Internet voting remains of interest in many countries and demand for such voting is also rising.

This chapter provides a theoretical framework for thinking about Internet voting. It starts with a consideration of the demand-side issues associated with Internet voting, including the desire for convenience in voting by both voters and election officials, the role that globalization plays in the need for remote voting, and the demographic changes that have made Internet voting of broad interest. Then, the Estonian experience with developing Internet voting is examined, with a focus on the legal, technological, and political considerations associated with their transition to this new voting mode. The Estonian case is compared to trials of Internet voting that have been conducted in other countries around the world. Finally, we consider barriers to broad adoption of Internet voting, with a focus on the legal and security issues associated with Internet voting, as well as the concerns that computer scientists have raised about this technology.

6.1 Demand-side Interest in Internet Voting

In an article titled “Security Aspects of Internet Voting” (2004), Guido Schryen lists the benefits and drawbacks of Internet voting. According to Schryen, Internet voting is promising for several reasons. First, Internet voting increases voter turnout rates, “especially for the older, handicapped, or sick people or those who cannot go or travel to their polling station.” (Schryen 2004: 1). Second, Internet voting reduces the cost of elections and decreases the number of invalid votes. Third, Internet voting utilizes cryptographic coding and other mechanisms which make election fraud difficult, thereby reducing electoral scams in young and endangered democracies. Finally, Internet voting supports basis democracy: “As soon as an Internet-

based poll infrastructure is built up,” Schryen writes, “basis-democratic voting processes become more feasible” (Schryen 2004: 2).

Given the potential benefits of Internet voting, many countries have been eager to implement and test online voting systems. In the following sections, we analyze the claim furthered by proponents of online elections that Internet voting reduces election costs. We then discuss the ways in which several nations have tested or implemented Internet voting in several nations. Specifically, we evaluate the success of Internet voting in Estonia, the United Kingdom, Switzerland, Norway, and the United States.

6.2 The Costs of Voting

Internet voting has been touted as a revolutionary tool in elections in part because it can be viewed as the killer app for addressing one of the factors that limits participation in elections: the costs associated with actually voting. As Riker and Ordeshook (1968) noted more than a generation ago, voting has certain inherent costs, one of which is the cost of actually going out to vote (Riker/Ordeshook 1968). In some countries, like the United States and the United Kingdom, those costs include working the action of voting into a regular weekday workday, where employment, kids, and other obligations all have to be balanced. In other countries, voting occurs on Sundays but can nonetheless be costly. A person may be away on holiday during voting weekend or it could be snowy, icy, and well below zero Fahrenheit on the day citizens have to vote. The person may have a physical or emotional disability that makes going to a polling place difficult. Even in the United States, where laws govern polling place accessibility and building modifications ensure compliance with the Americans with Disabilities Act, some voting locations are still not accessible or lack voting equipment that is truly accessible to voters with physical disabilities (U.S. GAO 2009). In short, there are many reasons why a person may not want to or be able to venture out to a polling place on Election Day to cast a ballot.

One alternative to polling place voting is to allow some form of remote voting and the most common form of this is postal voting. With postal voting, the ballot is sent to the voter by the election official before Election Day; the voter then completes the ballot and mails it back to the election official. The official then counts the ballot and the voter has participated meaningfully in the election. However, postal voting too has problems. First, voters often make mistakes on their postal ballots that lead to their vote not being counted. They don't fill in the bubble on an optical scan ballot correctly, don't "X" the box on the ballot appropriately, or otherwise make a mistake with the ballot that leads to their vote not being counted (Alvarez/Stewart/Beckett 2011). Postal voting also has a second problem, which is that the bal-

lot may not get back to the election official in time to be counted or the voter may fail to complete the absentee process correctly so that their ballot is not counted. On the latter point, a voter may not sign their ballot to verify that they are the person who voted the ballot or otherwise fail to complete the steps associated with completing the ballot. On the former point, there are often deadlines by which time a postal vote has to be received in order to be counted. Postal ballots are often disqualified because the ballot is received after the deadline (Alvarez/Hall/Sinclair 2008).

6.2.1 Internet Voting and Cost Reduction

Given the costs associated with election day voting and the problems that can be associated with postal voting, Internet voting has been seen by many as the way forward with voting. Using technology, Internet voting can overcome the two problems associated with postal voting. Internet voting platforms can provide voters with information so that they will not make an error in voting; if a voter skips a race they will be told and the voter can review their vote choices before casting a ballot, allowing them to make changes to their choices. The Internet also walks the voter through the steps required to authenticate the ballot so that the voter does not skip a step. The timing issues associated with Internet voting are also especially helpful. As with postal voting, an Internet voter can cast their ballot at any time that is convenient for them, even if that is on the last day of voting. Additionally, unlike postal voting, the Internet voter can also cast their ballot in the middle of the night; they do not have to wait for the mail to pick up their ballot and deliver it to the election officials. Data from the Estonian National Electoral Committee show that as Internet voting has become more routine for the Estonian voter, individuals are more likely to wait until the last days of Internet voting to cast their ballot.²

6.2.2 Does Lower Voting Costs Bring Increased Turnout?

Obviously, lowering the costs associated with voting could also potentially increase turnout in the election. Lowering the costs of voting do not necessarily increase turnout. As Berinsky (2005) has noted, sometimes lowering the costs of voting just makes it easier for habitual voters to vote but does not bring new votes into the electoral process. With Internet voting, it has often been suggested that Internet voting would increase turnout most among young voters or marginal voters. Part of the logic for it boosting turnout among young people is that these individuals expect voting to be as easy and convenient as online banking or the other online transactions that they com-

2 See Figure 1 in www.vvk.ee/voting-methods-in-estonia/engindex/statistics

plete. Alvarez and Hall (2008) start out one of the chapters in their book on electronic voting with a story in the *Los Angeles Times* written by a young woman who compared the current voting process as being like the Pony Express and questions why she can do bank transfers online but cannot vote that way. For these young people, Internet voting brings elections into the world that they are familiar with – digital, fast, online.

The data on whether Internet voting does boost turnout is mixed. In most of the small pilots that have been done, Internet voting has not been found to increase turnout (Alvarez/Hall 2004, 2008). However, in Estonia, where Internet voting has been used for some time and there have been numerous surveys done of the implementation and use of Internet voting, there is some evidence that marginal voters – people who might not have voted in the election otherwise – did vote using the Internet because it was convenient (Trechsel et al. 2010). Given that there are other, more important factors related to voting other than convenience – such as campaign effects, candidate quality, and the issues in the election – it should not be surprising that the turnout effects related to Internet voting are not exceptionally large.

6.3 Internet Voting for Expatriates

Perhaps the least understood population of voters who can benefit from Internet voting are true remote voters – expatriates and military personnel deployed away from their homes and their country. It is estimated that the population of civilians live overseas (either as expatriates or as dependents of government and military personnel) and military personnel deployed away from their home base in any given year is approximately 6 million. In Europe, it is estimated that 2% of workers in any given country are from a different European Union (EU) country (Krieger 2009). For some countries, the percentage of the population who may be away at any given time – such as those working in seasonal jobs – can be relatively high.

For individuals who are expatriates, there are generally three ways to vote. First, expatriates can vote in person at a designated location, such as their nation's embassy in the country where they are living. The obvious downside to this is that it requires traveling to the designated embassy voting location, which may not be convenient for a person not living in the capital city (or other major city with a consulate) of the country in which they reside. Second, individuals can proxy vote, where they designate a person – a spouse, family member, or similar trusted person – to cast a vote for them at the polls in their home country. This voting method obviously requires high levels of trust between the voter and the proxy that the vote will be cast as requested by the expatriate voter. Third, a voter can vote via postal voting mode. This method is the most effective means of remotely enfranchising

voters but still carries potential problems related to the delivery of mail and the time it can take to get a ballot from the country's election officials to the voter and back. This so-called ballot transit time problem can be very troubling for voters in those countries where laws that strictly govern when ballots must be returned to election officials in order to be counted.³

Several nations, including the Australians, British, Dutch, Estonians, French, Swiss, and United States have conducted Internet voting trials that were, at least in part, focused on enfranchising expatriate voters (Alvarez/Hall 2008). In each case, the pilot countries allowed certain voters to cast ballots from abroad. However, the most effective expatriate voting experiences have been in Estonia and Switzerland. Voters in these two countries can have confidence that this mode of voting will be reliable and is worth investing in learning about, given that the system will be used in election after election. The cost of voting in an Internet voting trial can actually be somewhat high, given that the voter has to learn about the pilot, learn how the system works and make a judgment about the value of voting using this mode, and then use the system. These costs were relatively low for the Estonians and Swiss, especially after the first election.

6.4 The Digital Divide

As it is discussed at the end of this chapter, the legal and security issues associated with Internet voting are one of the primary barriers associated with the broad adoption of this voting method. A second key concern associated with Internet voting is the digital divide that exists between those individuals who are online and those individuals who are not online. Although there is a large focus often by the media on the explosion of Internet connectivity and the usage of an array of digital devices, such as smart phones, and digital services, like Facebook and Twitter, there are large segments of the population in western countries who are not online. Recent statistics from Internet World Stats shows that over 41% of Europeans, and one-third of the population of EU member states, are not online or not online regularly (Internet World Stats 2011).

Data from the United States shows that just over 20% of the population is not online (World Bank 2012). A recent analysis of e-government usage in the United States found that there are very strong educational and income biases associated with e-government use (Hall/Owens 2011). Compared to individuals with a college degree, those people with only a high school education or less are more than 15 percentage points less likely to be online and 15

3 See http://www.pewcenteronthestates.org/initiatives_detail.aspx?initiative_ID=42722 for discussions of the issues associated with voting from abroad in the American electoral context.

percentage points less likely to be e-government service users. Even if we consider just people who are Internet users, people with less education are much less likely to be e-government users compared to people with a college degree. The findings are similar for income; those individuals with incomes of \$40,000 and less are less likely to be online and less likely to be e-government users compared to those with incomes over \$40,000. Given that education and income are correlated, the overall digital divide effects have the possibility of being pronounced.

Although there are digital divide effects that exist throughout Europe and the United States, there are also mechanisms that can mitigate these problems. For instance, broad public access to computers, at government facilities and the like, can help to minimize digital divide problems. In the Estonian case, several studies of the usage of Internet voting have found that there is not a digital divide problem in the implementation of Internet voting. The divides that one would expect between Internet voters and non-Internet voters – that Internet voters are wealthier and better educated – have not turned out to be true. Instead, Internet voting in the Estonian context is one where there are not biases that come from these factors, or from political factors. Internet voting does not favor certain types of voters over others in the process.

6.5 The Estonian Experience

Estonia – a European Union and Eurozone member states – is the only nation that has effectively integrated Internet voting into their national electoral laws, policies, and processes (Alvarez, Hall, and Trechsel 2009). The Estonians used a number of procedures at this stage to mitigate some of the threats commonly associated with Internet voting systems. First, the url of the website from which they could access the Internet voting applications were published, and voters were urged to go to the website by typing the url into their browser themselves – not to go to the website by clicking on a link in an email. Second, the server certificate was publicly available, and e-voters were urged to check the certificate of the server they were using with the published version. Finally, Estonians were urged to make sure that the computer they were using was free of viruses and other malware before engaging with the Internet voting application.

Since 2005, Estonians have been able to vote using three different modes of participation for its local, national and European Parliamentary elections. As in all countries, Estonians can vote on Election Day (a Sunday) and like most OSCE countries, they can also vote in person in early voting, which is held between the tenth day before the election through the fourth day before the election. In these two modes, voters write in the number corresponding with the candidate that they support in a box on a paper ballot. The ballots are

then hand-counted by the precinct workers after the polls have closed, after which all ballots and tallies are transmitted both electronically and by hand to the National Electoral Commission.

The process of Estonian Internet voting can be explained as follows (see also Madise and Vinkel 2011; Madise 2008; Madise/Martens 2006). Internet voting must be done during the early voting period. The voter downloads the voting application from the National Electoral Commission's voting website (www.valimised.ee) and is prompted to insert their national Identification card – which contains a digital identification chip – into a simple smart card reader attached to the computer and to type in their Personal Identification Number (PIN). These card readers are inexpensive (approximately \$8 US) and are often given away by banks and other entities, because the cards are used to authenticate Estonians in a range of governmental and private transactions. In addition, card readers are available on computers at many public locations. The card and PIN together serve to authenticate the voter, allowing them to obtain a ballot and begin the process of voting. At this point, the voter's identity is authenticated by a server containing the Estonian Population Register; the voter is then sent to a page that provides their candidate list. From this page, voters can select their candidate and confirm their choice. At this point, they provide their second PIN, which serves to digitally “sign” the ballot, and the voted ballot is encrypted. The signed ballot is sent to the voting server, which verifies that the voter's digital signature is correct. Once it is verified, the voter receives message on their browser confirming that their ballot has been received. The encrypted ballot is then stored on a server until it is time to be tabulated. If a voter wants, they can vote in-person early and this in-person ballot would invalidate the Internet vote. This process is intended to provide a fail-safe for voters who may feel intimidated or coerced to vote a certain way online, or decides that they are unsure about the Internet voting process.

The NEC tabulates Internet votes during the last sixty minutes of polling place voting on Election Day in a specially designated space in the Estonian Parliament building. Because Internet voters can cast multiple Internet votes (only the final vote counts) or can cast a paper ballot in early voting, the first step in the tabulation process is sorting out the eligible ballots – the final ballot cast by Internet voters who did not also vote early in-person. These ballots are then decrypted using a process that requires multiple members of the NEC entering in an identification card and private key into the decryption system. The decrypted ballots are then placed on a compact disc and physically transferred from the ballot storage system to a tabulation system, and the vote totals are revealed. This process is transparent, with observers, the media, and a third-party auditor hired by the NEC checking the process.

What is it that makes Estonia an international leader in Internet voting? Alvarez, Hall, and Trechsel (2009) identify four characteristics of Estonia that provide a favorable environment for Internet voting: (1) a high level of

Internet penetration, (2) a legal structure that incorporates Internet voting, (3) a digital identification system that allows for online authentication of a person, and (4) a political culture supportive of Internet voting. First, the Internet penetration rate in Estonia In 2011 was 75%, higher than the rate in France. Second, the Estonians have developed a legal system that supports and facilitates Internet voting (Drechsler/Madise 2002). Three laws – the Local Government Council Election Act, the Referendum Act, and the *Riigikogu* Election Act – were passed in 2000, each of which allowed for Internet voting in specific types of Estonian elections and specified the way in which the process would be administered. The time frame during which voters could vote online, the mechanism for authentication, the process for reconciling ballots at the end of the election, and other facets of election administration with Internet ballots were all specified in these different laws. These statutes have been upheld by the Estonian courts as meeting all constitutional electoral requirements.

Third, perhaps the most important legislation related to Internet voting is the Digital Signature Act (DSA) of 2002. It is the DSA, and related administrative legislation, that allows individuals to use their government-provided digital signatures as proof of identity and authentication in online transactions like voting. Having a strong digital identity statute provides a critical framework for allowing remote transactions to be secure and authenticated, which is critical for having a strong Internet voting system. In practice, the DSA is significant because Estonia actually has implemented a process of producing and requiring citizens to have an identity card that has a digital certificate embedded in the card that can be used, when combined with a unique PIN, for authentication in online transactions.

Finally, Estonians have confidence in the Internet voting process. Several surveys have found that Internet voting enjoys high levels of support among the Estonian citizenry. Voters typically have confidence in online activities, including voting, and they recognize that they have options for how to cast a ballot, which makes it possible for a voter to cast a ballot in the way in which they are most comfortable – either in-person (early or on election day) or online.

6.6 Other Internet Voting Experiences

Although Estonia has a very advanced record with their implementation of Internet voting, they are not the only nation that uses Internet voting consistently. Several Swiss cantons have used Internet voting for their direct democracy initiative elections, and the United Kingdom and Norway have begun conducting Internet voting pilot tests in hopes of implementing the practice permanently. This section discusses the use of Internet voting in these

three countries (see Alvarez/Hall 2004, 2008, Reniu 2008; Treschel/Mendez 2005). Internet Voting in Switzerland

Beginning in 1998, the Swiss federal government invited the cantons of Geneva, Zurich, and Neuchâtel to develop Internet pilots (Auer/Trechsel 2001). Swiss officials cited several reasons for launching an Internet voting project (Republique et Canton de Geneve 2003). First, Switzerland functions under a direct democracy system, meaning that any parliamentary vote can be challenged by the Swiss people; accordingly, Swiss citizens often have to vote several times a year. The Swiss government pursued Internet voting largely as a way to make these voting experiences more convenient for Swiss citizens. Second, Swiss voters are fairly receptive towards remote voting practices. Starting in 1995, citizens living in Geneva were permitted to vote via postal mail; by 2003, nearly 95% of Genevan voters utilized postal voting methods. Because the citizenry had already accepted and adjusted to remote voting, Swiss officials thought implementation of internet voting was appropriate. Third, Swiss studies on postal voting found that many of the security concerns inherent in internet voting (such as vote buying or coercion) were not problems for Swiss postal voters. Fourth, the Swiss Federal Statistics Office found that a majority of the Swiss population had internet access, making internet voting a practical option for Swiss citizens. Finally, Internet voting was implemented in an attempt to provide easy voting access to disabled citizens or those living abroad.

Swiss pilot tests of Internet voting were highly successful. A November 2004 internet voting trial in Geneva found that 43.6% of municipal voters in Anieres used the Internet to cast their ballots; this figure is especially impressive considering the total turnout rate in Anieres was only 63.8% (Auer/Trechsel 2001). Trials in other cantons yielded similarly high results. Nearly 90% of Internet voters suggested that they would use the Internet to vote again in the future. Interestingly, Internet voting drew voters in Geneva away from the popular postal voting method; nearly 17% of those who traditionally used postal voting opted to use the Internet instead (Gerlach/Gasser 2009, Braun/Brändli 2006).

Since introducing Internet voting, Geneva has held the most online elections of any jurisdiction in the world because of the number of referenda elections they conduct. As is the case in Estonia, there is strong support for Internet voting in Switzerland (Kies/Trechsel 2001, Trechsel/Mendez 2005, Trechsel et al. 2007). The Swiss have developed a strong regulatory system to support Internet voting and, although they do not have digital identity as a part of their national identity cards, they do have a sophisticated process for providing all voters with a means of authenticating themselves online.

6.6.1 Internet Voting in the United Kingdom

The Swiss and Estonians have effectively implemented Internet voting into their electoral laws, processes, and cultures. Other nations have attempted experiments with Internet voting, with varying degrees of rigor and success. This is not an exhaustive list but is intended to provide a more detailed overview of certain efforts. Consider first the United Kingdom, which conducted several trials of Internet voting and other remote voting methods between 2002 and 2004. These trials were conducted under the auspices of the UK Electoral Commission (EC) and the Office of the e-Envoy. Unlike some Internet voting trials, which have been focused on increasing turnout, the EU was interested in studying how Internet voting affected several aspects of the voting process. As the EC stated in *Modernising Elections*,⁴

The pilots took place against a backdrop of seemingly irreversible declining participation in local government elections and the substantial drop in turnout in June 2001 general elections... However, turnout was not the only, or even primary, goal of the pilot schemes. Some were looking for administrative efficiency gains; others wanted to be involved in the state or the process of developing electronic voting mechanisms robust enough to win public credibility.

Given the various facets of the voting process that were being studied, the EC developed a multi-pronged evaluation process that included voter surveys, cost-benefit analyses, efficiency studies, and similar analyses. As Alvarez and Hall (2008) note, one of the greatest benefits to come from these pilot programs was the strong publication and evaluation component they had. The broad dissemination of these reports meant that policy makers worldwide could learn about their efforts.

The UK conducted three sets of voting pilot programs between 2002 and 2004 and various types of electronic voting methods were tested. These methods including voting over the Internet, voting on precinct-based touch-screen machines, voting via text messaging systems, voting via the telephone, and voting using interactive digital television services (Alvarez/Hall/Trechsel 2009: 498). An interesting result from these trials was that focus group respondents stated that “voting using the internet is tacitly accepted by most as ‘the way forward’ (at least in conjunction with other methods). Some see it as a logical, and perhaps even inevitable development, especially in the context of the younger generation’s perceived preference for communicating electronically.” (Alvarez/Hall 2008, see also Electoral Commission 2003) The trials found that, when voters were given a choice between paper ballots and the new electronic modes of voting, the electronic modes won out.

4 http://www.electoralcommission.org.uk/_data/assets/pdf_file/0006/63870/Modernising-elections---Executive-summary.pdf (2002, 15)

The evaluations also provided important data regarding the relative efficacy of Internet and electronic voting modes compared to traditional voting. First, the electronic and Internet modes of voting did not result in a large boost in turnout. This may have been for a variety of reasons, including voters not being familiar or comfortable with the new technology, the lack of permanence to the voting mode – knowing that investing in learning would pay off in getting to use this voting mode in the next election – or because these were small tests and turnout differences were hard to capture. The trials did show that postal voting, a low tech remote voting method, did boost turnout and this is the technology that the EC adopted most readily moving forward (Alvarez/Hall 2008).

The trials in the UK also illustrated several important issues associated with the implementation of Internet voting generally. These include the roles of third party vendors in these efforts, as well as associated issues related to contract management, quality assurance, and project management. The trials also illustrated that there are potential cost savings associated with using technology on a larger scale; high cost technologies need many users to have a reasonable return on investment.

6.6.2 Internet Voting in Norway

Like the United Kingdom, Norway has recently experimented with the possibility of Internet voting. During a 2003 trial of electronic voting, Norwegian voters were asked how they felt about the possibility of Internet voting. According to a report released by the Norwegian government, six out of ten voters said they would prefer to vote over the internet. Younger voters and more educated voters were more favorable towards Internet voting than their older, less-educated counterparts (Norwegian Ministry of Local Government and Regional Development 2006). Based on these positive responses, the Norwegian government launched an Internet voting trial during the September 2011 municipal and County Council elections. The trials, which were conducted in 10 Norwegian municipalities, allowed voters in Norway to cast their ballots online for the first time.

Norway's Internet voting trials copied the Estonian Internet voting model (Goldsmith 2011). Online voters were permitted to cast multiple votes during the Internet voting period. Internet voters were also permitted to cast a paper ballot – which superseded any previously submitted Internet ballots – on Election Day. If no paper ballot was cast, the voter's most recent Internet ballot was included in the final count. The Norway trials also included a new safety mechanism whereby Internet voters received text messages containing party codes that could then be verified against the party codes listed on the Internet ballots. The text messages enabled voters to check their vote – as received by the system – and verify that it matched the ballot they intended to submit.

Although the official assessment of the Norwegian trials will not be released until later this year, initial reports suggest that nearly 25% of voters in the trial municipalities used the Internet to cast their ballots. This means that a little less than half of the voters (the total turnout in trial municipalities was 62.3%) opted to use Internet voting rather than traditional paper-based polling. This figure is considerably high, given that the 2011 elections were Norway's first time experimenting with Internet voting. If the official assessment confirms that the internet trials were as successful as the initial reports suggest, it is likely that Norway will implement Internet voting in all municipalities for future elections.

6.7 Internet Voting in the United States

In the United States, there have been several attempts to experiment with Internet voting. These efforts have typically been one-shot efforts to test Internet voting in a specific setting and rarely the type of evaluations in the UK have been conducted with American Internet voting trials. The Internet voting trials have occurred in two specific types of settings. First, Internet voting has been conducted as a part of primary elections conducted by Democrats: in 2000 in Arizona, in 2004 in Michigan, and in 2008 with Democrats Abroad. In each case, the Democratic Party in the state (or, in 2008, for the organization) made a decision to use the Internet as a mode of voting for the party's presidential primary election and the goal was always to see if Internet voting would boost interest in the primary and boost turnout. Second, Internet voting has been used in an effort to facilitate voting by one of the most difficult to reach set of voters in the United States – military personnel, military personnel's dependents, and civilians living overseas who are covered by the Uniformed and Overseas Civilian Absentee Voting Act (UOCAVA). In 2000, 2008, and 2010, Internet voting was deployed to serve a small segment of these voters and a larger experiment to provide Internet voting to this population was canceled prior to the 2004 elections.

Internet voting has been conducted in two Democratic primary elections. In Arizona in 2000, all registered Democrats were mailed a PIN that allowed them to vote online if they wanted. In Michigan in 2004, voters could choose to vote online and those who did so were provided a PIN that authenticated them to vote online. In the Michigan caucus, 162,929 caucus votes were cast and recorded, 29% of which were cast using the Internet. By comparison, in the 2000 Arizona Democratic Primary, 42% of all ballots were cast over the Internet before Election Day. More votes were cast in the Michigan Democratic Caucus in 2004 than were cast in the Arizona Democratic Primary in 2000, even though a larger percentage was cast in Arizona. In neither Ari-

zona or in Michigan did the use of Internet voting boost overall turnout in the election. In both cases, turnout was not greatly affected by the use of the Internet as a voting mode. Equally as important, neither of these elections contained an evaluation component. As several scholars have noted, there is little that can be learned from these two elections about the efficacy of Internet voting in the United States because no data was collected during the process (Alvarez/Hall 2004, 2008).

In 2000, the Federal Voting Assistance Program (FVAP) – the U.S. government agency tasked with serving UOCAVA voters – conducted a proof-of-concept trial for Internet voting. In 2000, 83 UOCAVA voters from five states cast ballots online in the general election. In 2004, FVAP was going to build on their 2000 experience and implement an Internet voting project called the Secure Electronic Registration and Voting Experiment (SERVE). SERVE was intended to build on the lessons learned in the 2000 experiment and allow UOCAVA voters to register and vote using a personal or work computer. The idea behind Internet voting for UOCAVA voters voting online is that it gives the flexibility to vote when it is convenient and helps them to overcome the problems associated with transmitting their ballots via mail. Because of a negative report about Internet voting that was released in late January 2004, Deputy Secretary of Defense Paul Wolfowitz signed a memorandum blocking the implementation of the SERVE system in the 2004 election cycle (Alvarez/Hall 2008).

The cancellation of the SERVE project did limit the desire of policy makers and election officials to consider Internet voting. However, in 2008, Okaloosa County, Florida conducted an experiment with kiosk Internet voting, allowing voters to cast ballots using the Internet from a remote polling location which transmitted the completed ballot online. The idea here was to test to determine how this version of Internet voting (where the election official controls the voting computer) compared to Internet voting conducted on a personal computer. Much like the 2000 FVAP trial, this experiment was a proof of concept. In 2010, the state of West Virginia also conducted a limited Internet voting trial for military and overseas voters but it was quite limited in scope as well.

6.8 Legal Limitations of Internet Voting in Germany

Internet voting has been successfully implemented or tested in several nations, but in other countries the practice faces legal barriers. Germany is one such country. In 2009, the German Federal Constitutional Court ruled that electronic voting technologies (which were utilized in 39 German voting districts during the 2005 federal election) did not meet the constitutional requirement of electoral transparency. Article 38 of the German Constitution guarantees the “pub-

lic nature of elections”; according to the Court, this provision means that “all essential steps in the elections are subject to public examinability unless other constitutional interests justify an exception.”(Art. 38 in conjunction with Art. 20.1 and 20.2 German Basic Law, see also Bundesverfassungsgericht 2009). After evaluating the voting technologies employed during the 2005 federal election, the Court decided that electronic voting did not meet constitutional requirements insofar as it did not provide a way for voters to determine whether their votes had been “unfalsifiably recorded and included in the ascertainment of the election result” (Bundesverfassungsgericht 2009). Moreover, the Court found that the electronic voting machines used during the election were not adequately guarded against potential tampering or manipulation. The Court also ruled that the Federal Voting Machine Regulation (Bundeswahlgeräteverordnung 1975) was unconstitutional because it did not require transparent safety and control measures to ensure accurate ballot counts.

The Court’s 2009 decision could limit the use of electronic voting systems in future German elections. The ruling also creates legal obstacles for the implementation of Internet voting methods in Germany. If remote Internet elections are to become standard practice in Germany, they will have to meet the standards for public elections articulated in the Court’s ruling on electronic voting.

Schmidt et al. (2009) propose a legal framework for Internet voting that meets the requirements defined by the German Federal Constitutional Court (Schmidt et al. 2009). Their framework contains several components. First, the authors require that all remote electronic voting service providers (VSPs) be accredited by an administrative body. Accreditation would affirm that the VSP fulfils security requirements, generates adequate documentation of the voting process, and has a history of providing secure and dependable Internet voting services. VSP accreditation would have to be renewed on a regular basis, and Non-accredited VSPs would not be enlisted to provide services for a German election.

Under the legal framework designed by Schmidt et al., VSPs would be held to certain legal requirements during an election. First, the VSP would have to prove that its technology established no link between a voter and his or her ballot; in other words, the VSP would have to provide for secret ballots. Second, the VSP would need to have high service availability to guarantee universal suffrage. Third, the VSP would be legally obligated to provide a secure voting environment that was free of manipulation. Fourth, the provider would need to be able to verify and authenticate the identity of voters. Fifth, the VSP would be required to brief voters on the risks and necessary security precautions associated with Internet voting. And finally, the VSP would have to satisfy the constitutional principle of public nature of elections by having a tangible way to verify the integrity of the voting procedure.

The framework described above addresses the legal issues identified by the German Federal Constitutional Court in their 2009 ruling on electronic

voting equipment. Specifically, the framework ensures that Internet voting systems meet German constitutional standards for the public nature of elections. The legal principles articulated by Schmidt et al. are promising, because they provide a way for Internet voting to succeed in countries where the practice faces significant legal obstacles. If adopted in Germany, this legal framework could become a model for other nations who want to implement Internet voting technologies in spite of legal barriers.

6.9 Internet Voting and Security

One of the primary concerns with Internet voting is the security of this voting mode. As Alvarez and Hall (2004, 2008) have noted, all voting modes have certain pathologies and the primary ones related to Internet voting have a comparative one in the paper-based voting world. However, it is worth reviewing the risks associated with Internet voting, including the risks associated with hacking, cyber attacks, and other deleterious practices (Volkamer 2008).

Although there are many benefits of Internet voting, numerous scholars have identified risks associated with Internet voting (Alvarez/Hall 2004, 2008). As many scholars have argued, these risks “have to do with vulnerabilities of the PC platform and vulnerabilities associated with the internet itself” (Lauer 2004: 182). Because Internet voting is conducted online, Internet elections are in danger of the same “worms, viruses, and Trojan horses” that threaten any user of the worldwide web (Schryen 2004: 2). For example, a virus or malware could prevent a voter from being able to cast a ballot online, effectively disenfranchising that voter for the given election. Additionally, Internet voting presents the risk of cyber-attacks which “could result in large-scale, selective voter disenfranchisement, and/or privacy violation, and/or vote buying and selling, and/or vote switching even to the extent of reversing the outcome of many elections at once.” (Jefferson et al. 2004: 60). Such cyber-attacks could be conducted “from anywhere in the world,” and would “have a devastating effect on public confidence in elections” (Jefferson et al. 2004: 60).

Another critique of Internet voting is that there is typically not a paper record – a so-called “paper trail” – of the votes, making the system vulnerable to “programmed insider attacks” (see Jefferson et al. 2004, 61). Riera Jorba, Ruiz, and Brown (2003) believe that any problems that stem from the lack of a voter-verified paper trail can be easily overcome using adequate security measures. If technological, physical, and procedural precautions are taken, they argue, “paper trails are not strictly necessary” (Riera Jorba/Ruiz/Brown 2003: 69). According to Lauer, such insider attacks are common in commercial settings and could easily compromise the outcome of an inter-

net election (Lauer 2004: 182). However, there have been efforts in recent years to overcome this problem by conducting Internet voting from kiosks that do produce a paper record. For example, the Internet voting trial conducted in 2008 in Okaloosa County, Florida for military voters did have such a paper record as a part of the process. Voters cast ballots at a specific Internet enabled computer location – not their own home personal computer – and the machines at these locations printed a paper ballot.

Critics of Internet voting also often make much of the fact that Internet voting affords less privacy and secrecy than traditional polls with voting booths (Schryen 2004). The argument here is that, when voters cast their ballots from their home or work computers, it is possible that a spouse, co-worker, or friend will oversee the voting process. This lack of privacy is problematic insofar as it would increase the likelihood that “individuals in abusive relationships could be coerced to vote a particular way.” (Lauer 2004: 183). However, this type of critique is less one of Internet voting but of remote voting generally. As Alvarez and Hall (2004) note, these pathologies of Internet voting are exactly identical to those associated with postal voting. Any remote voting conducted outside of the control of election officials will have this problem.

The types of attacks and threats that are more directly associated with Internet voting are generally places into one of two categories two basic groups: penetration attacks, which target the client or server directly, and denial of service (DOS) attacks, which target and interrupt communications between client and server (Internet Policy Institute 2001: 13). It has been argued that each of these types of attacks has “advanced in sophistication and automation in recent years”; both penetration and DOS attacks can “do more damage, are more likely to succeed, and disguise themselves better than ever before” (Rubin 2002, 40). In the next section we consider penetration attacks and DOS attacks in more detail.

6.9.1 Penetration Attacks

Penetration attacks are the “use of a delivery mechanism to transport a malicious payload to the target host in the form of a Trojan horse or remote control program” (Internet Policy Institute 2001: 13). Once it reaches the target host, the malicious payload is capable of inflicting unlimited damage on the system. According to Rubin, “a malicious payload on a voting host can actually change a voter’s vote without the voter or anyone else noticing, regardless of the encryption or voter authentication in place.” (Rubin 2002: 40). Another analysis expresses similar concerns, citing the malicious payload’s ability to “spy on ballots, prevent voters from casting ballots, or, even worse, modify the ballot according to its instructions.” (Internet Policy Institute 2001: 13).

Penetration attacks are especially problematic because they are nearly impossible to detect. Many malicious payloads are designed with a “stealth mode” that enables them to evade virus and intrusion detection software (Internet Policy Institute 2001: 13, Rubin 2002: 40). Additionally, malicious payloads are capable of self-erasure and leave little evidence of fraudulent activity. Malicious payloads “do not appear in the Task Menu of running processes; even an experienced administrator would have difficulty discovering its presence on a computer.” (Rubin 2002: 40). Perhaps most troubling is the fact that malicious payloads can be, and often are, delivered through seemingly benign methods: CD-ROM, Internet downloads, e-mails, etc. And malicious payloads can be activated unintentionally: “Even the simple viewing of a message in the preview screen of an e-mail client has, in some cases, proved sufficient to trigger execution of its attachment.” (Internet Policy Institute 2001: 21). The recent so-called “stuxnet” attack on the Iranian nuclear program that may have devastated parts of their computer systems was exactly this type of attack (The Christian Science Monitor 2011).

Malicious payloads can affect Internet voting in several serious ways. It has been argued that such attacks can cause selective disenfranchisement, vote theft, privacy compromise, and disruption of democracy (Jefferson et al. 2004: 62). In addition to carrying severe consequences, malicious payload attacks are relatively easy to execute; the tools required for malicious payload delivery are “widely available” (Lauer 2004: 182). Perhaps most concerning aspect of malicious payloads is the fact “detection is difficult” and “no simple countermeasures” exist. Moreover, such attacks are most likely to be launched to attack the computer’s used by individual voters, and many individuals and corporations may fail to follow certain basic rules associated with good computer security.

Even with these concerns, there have been efforts to test the robustness of Internet voting systems that have proven successful. In Switzerland, Internet voting was pilot tested in Geneva in January 2003 without incident. The Swiss also hired a team of “white-hat” hackers to try to break into their security system over a three-week period – the system was online to voters only for two days – but the hackers failed (Alvarez/Hall 2004).

6.9.2 Denial of Service (DOS) Attacks

A second type of attack is Denial of Service (DOS). DOS attacks occur when “legitimate users are prevented from using the system by malicious activity such as overloading the election Web server.” (Jefferson et al. 2004: 63). Such attacks are not new, but have become more sophisticated over time. DOS attacks came to prominence in 2002, when several high-profile websites – including CNN, Yahoo, and eBay – were affected by DOS attacks that were launched by a teenager (Jefferson et al. 2004: 64). More recently, the

hacker group Anonymous has launched very effective DOS attacks against an array of corporations and these cyber-security threats – from Anonymous and others – have become so severe that the Director of the FBI has stated that “I do not think today [that cyber-attacks are] necessarily [the] number one threat, but it will be tomorrow. Counterterrorism – stopping terrorist attacks – with the FBI is the present number one priority. But down the road, the cyberthreat, which cuts across all [FBI] programs, will be the number one threat to the country.” (ABC news 2012).

The technical description of a DOS attack is as follows:

[A DOS attack] involves the use of one or more computers to interrupt communications between a client and a server by flooding the target with more requests than it can handle. This action effectively prevents the target machine from communicating until such time as the attack stops. A refinement of this technique is referred to as distributed denial of service (DDOS) in which software programs called daemons are installed on many computers without the knowledge or consent of their owners (through the use of [malicious payload] delivery mechanisms [...]), and used to perpetrate an attack. In this manner, an attacker can access the bandwidth of many computers to flood and overwhelm the intended target. (Internet Policy Institute 2001, 14-15)

A DOS attack would severely impair the administration of Internet elections in several ways. A successful DOS attack could result in wide-scale disenfranchisement across one mode of voting. A DOS attack could even be tailored to affect network services in certain geographic or potentially even other demographic areas – like a college campus – in an attempt to disenfranchise specific groups of voters who are more likely to vote for one demographic group (Jefferson et al. 2004: 64). Of course, such an attack can be overcome by allowing individuals to vote via multiple modes – early, remotely (by mail or Internet), and in-person – so that if there is a problem with any specific mode there is an alternate one that the voter can use. These attacks would also be problematic because battling such an attack could be costly in terms of both time and resources.

6.10 Additional Critiques

Critics of Internet voting do acknowledge that there are problems associated with traditional voting modes and that many of the vulnerabilities associated with Internet voting do have an analogous version in traditional voting. However, computer security experts are generally more concerned about Internet voting. A survey conducted in 2004 of people working in the field of computer security found that 60% of respondents had a negative opinion of Internet voting (Machlis 2004). One reason for this is that Internet attacks are generally

considered to be more scalable compared to traditional voting (see Rubin 2002, 44). Of course, the scalability of an Internet attack would depend on the way in which the Internet voting system is implemented. If the systems varied across jurisdictions, then the scalability might be more limited. Moreover, other voting systems, such as Oregon's system where all of the voting is conducted via the postal service, are also vulnerable to failures in the system.

Despite their concerns, election scholars realize that "the deployment of e-voting systems will likely continue." (Lauer 2004: 184). Still, most argue that internet voting systems warrant careful and cautious implementation. Some researchers, like Jefferson et al. (2004), emphatically discourage the use of any Internet voting systems. Others researchers, recognize that Internet trials will be conducted but are concerned that election administrators and policy makers will assume that Internet voting trials that are not problematic prove that such voting systems are safe. "The fact that none of these experiments has resulted in a serious breach of security," Rubin asserts, "is no argument that these systems are not vulnerable." (Rubin 2002: 40). Still other scholars accept the use of Internet voting in small, low-stake elections (such as school board elections) but advise against the use of online voting in "national elections where the fabric of democracy is at risk." (Lauer 2004: 185).

6.11 Conclusion

Internet voting remains a controversial voting technology. On one side of the debate are those individuals who think that Internet voting will increase turnout – especially for difficult to serve and difficult to mobilize voters such as military personnel, expatriates, and young people – and will increase the quality of the voting experience by reducing the problems associated with remote voting, such as errors casting a ballot and difficulties returning the ballot on-time. On the other side of the debate are those individuals who worry about the security of voting online and fear that Internet voting – especially broad scale Internet voting – will prove to be a very attractive target for foreign governments, terrorists, and hackers, who want to influence the outcome of a country's election. Such an attack could undermine public confidence in a given election outcome, in the electoral process, and ultimately in a nation's democracy.

This debate is likely to continue for the next several years but there is one clear trend in the area of Internet voting, which is that countries with Internet voting systems – Estonia and Switzerland – will continue to use them and many other countries, including Norway, jurisdictions in the United States, and other European nations, will continue to experiment with this voting technology. In the United States, such trials will be conducted in large part because of a desire by many to ensure that deployed military personnel,

who are poorly served through the postal voting process, are enfranchised. In Europe, these efforts are driven by several factors, including a desire to increase turnout, to serve difficult to reach populations, and because of inter-country competition (i.e., keeping up with the Swiss and Estonians!)

These Internet voting pilot projects are only truly helpful if the countries that engage in them take the time to conduct a meaningful study of the pilot. For example, Estonia and the Swiss have conducted numerous surveys evaluating the public's attitudes toward Internet voting and the British and Norwegians conducted broad studies of their Internet voting trials (Alvarez/Hall 2004, 2008, Alvarez/Hall/Trechsel 2009, Trechsel/Mendez 2005). The Swiss and others have also conducted penetration studies of their Internet voting systems. By conducting these studies, it is possible for policy makers to learn about the various aspects of Internet voting and what works and what does not. Internet voting typically involves introducing an array of new systems into the voting process: new voter authentication processes and procedures, a new voting technology, new ballot tabulation and reconciliation systems, new voter registration interfaces, and other administrative activities. Unless these activities are well-studied, it is difficult for policy makers to know if a given Internet voting pilot was successful as perceived by the voter, the election officials, the political parties and candidates, and other interested groups. Given the steady movement of Internet technologies into all aspects of our lives, Internet voting will remain of interest to voters and policy makers across the globe.

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7. Voting Advice Applications

Andreas Ladner and Jan Fivaz

The Internet has become an integral part of politics and will continue to gain importance in the years to come. Internet-based solutions comprise simple websites conveying information, applications which incite and further political participation, and more complex forms of interactive and deliberative policy forming. Particularly in the context of elections the Internet opens up new and promising possibilities for parties and candidates wanting to present themselves and their political programme, to organise the election campaign, to gather funds, to mobilise support and to enter into a direct dialogue with the electorate (cf. Chadwick/Howard 2009, Schweitzer/Albrecht 2011).

So-called Voting Advice Applications (VAAs) take a privileged place among the political websites. VAAs offer help in deciding how to vote by comparing the preferences of parties or candidates with respect to different political issues with the preferences of the specific voters and indicating those parties or candidates who are politically close. Nowadays, one or several VAAs are on offer at practically all national elections in Europe and they are used by millions of voters. The parliamentary elections of 2006 in the Netherlands are an impressive example of the widespread use of online voting aids: About 9.8 million voters took part in the elections and the two biggest VAAs alone were consulted 5.7 million times (Louwerse/Rosema 2011: 6).

These figures, even if regarded with a certain amount of caution, serve as an impressive indicator of the value of VAAs among political websites. Given their widespread use it is astonishing that so far, political scientists have hardly dealt with VAAs and their possible effects on electoral behaviour and election results. Generally, VAAs are seen as an interesting epiphenomenon. It is only in the past few years that political scientists have begun to ask the many questions that arise in connection with VAAs and their use.

7.1 What are VAAs and how do they work?

VAAs are issue-matching systems. Their basic functions are simple. At first, a catalogue of issues reflecting the most important political discussions and problems serves to identify the positions of the parties or candidates (for a party election or a personal election respectively). These political positions are saved in the form of a profile. As a next step, the website allows voters to construct their own profile by means of the same catalogue of issues. This profile can then be compared with the profiles of the parties or candidates. The VAAs then calculate the congruence between voters and parties or candidates and display the results as rankings. All VAAs have this basic system in common (differences will be discussed in section 2).

This shows that online voting aids are not only based on the normative idea of so-called issue voting but actually implement issue voting in an ideal fashion (Klein 2006: 595). Issue voting is based on Downs' (1957) spatial model of politics and on his notion that the congruence between voter and party or candidate with respect to the essential political issues should be the decisive criterion of an election. In its original form, this model assumes that a rational voter will vote for the party which is closest to his or her own views. This approach is thus also referred to as proximity voting. It has to be said, though, that a number of restrictive and somewhat unrealistic assumptions are involved.

Downs based his approach on the electoral campaigns in the USA where in general two parties provide one candidate each, competing against each other in their constituency. The position on the left-right axis provided the only measure of political proximity. The voter needs to have clear preferences in order to arrive at a rational decision and he needs to know the positions of the candidates. This is where Downs' approach invites criticism. It is doubtful that voters always display clear preferences. Rather, it can be assumed that they often have diffuse preferences (Rabinowitz/MacDonald 1989). Furthermore, in European countries there are usually more than two parties or candidates competing against each other, which considerably increases the amount of information needed for a choice, and the left-right axis alone does not correspond to political reality (cf. Kriesi et al. 2008). In such a complex arena many voters will not have the time to comprehend and compare the positions on a large number of issues.

The model of directional voting takes account of all this and while being a form of issue voting assumes that the voter is interested in rough directions rather than detailed issue preferences. In this way voters can lower their information-seeking costs (Rabinowitz/MacDonald 1989).

The question now arises whether VAAs in their basic approach are closer to the proximity voting model or to the directional voting model. At first sight the matter seems clear: Online voting aids help citizens to lower their information-seeking costs. They facilitate the comparison of the positions of

a large number of parties and a large number of issues with one's own preferences in a short time (Jeitziner 2004). Insofar they follow the logic of proximity voting. However, in their implementation several VAAs show features which are to be attributed to the directional voting model (for instance in the range of answers containing a neutral middle position or the possibility of weighting issues). The answer to this question is therefore ambivalent, at least from a theoretical point of view (Wagner/Ruusuvirta 2009: 9). Also, no empirical study has yet been undertaken to answer the question which model better explains the voting choices of VAA users.

Such a study would also have to take into account other approaches explaining electoral behaviour, such as strategic considerations which may influence a voting decision. Often, governments are only formed after intensive coalition negotiations, and in parliamentary practice decisions are often compromises between two or more parties. By pre-empting such negotiations and compromises it may be rational for moderate voters to elect extreme parties even though they are not closest to their preferences (Kedar 2005). Moreover, there are sociological factors to be considered (e.g. voting according to social class; Lazarsfeld et al. 1944) as well as socio-psychological factors (e.g. identification with a particular party; Schoen/Weins 2005).

Up to now, VAAs have been based exclusively on the theoretical foundation of issue voting. In principle, it is perfectly possible to integrate other explanatory models of electoral behaviour. For instance, VAAs could offer the possibility of filtering candidates according to socio-demographic features such as gender, age, income and occupation. It will be interesting to see whether VAAs will evolve in this direction in the years to come.

7.1.1 Historical development

The Dutch *Stemwijzer*¹ is generally regarded as the very first voting aid. Its earliest version was developed in 1989 in a printed form to be used in teaching politics at school. The popularity of this tool left a lot to be desired, as only 50 copies were sold. In 1994 a first computer-based version was developed and several thousand disks could be sold. In view of the parliamentary elections of 1998, a first online-version was introduced, which was used 6,500 times (De Graaf 2010). In Finland, a VAA had been developed independently two years earlier. In subsequent years, new voting aids were added by and by, so that no fewer than 20 different online-voting aids were on offer for the parliamentary elections of 2007 (Ruusuvirta 2010: 47-49). In other European countries a veritable VAA boom began in the years following the millennium. Today it is difficult to find a European country that does not offer several online voting aids during electoral campaigns (a good overview of

1 Cf. <http://www.stemwijzer.nl> (20.01.2012).

the rapid expansion of VAAs can be found in Walgrave et al. 2008b as well as in Cedroni/Garzia 2010). Besides a multitude of independent websites, three “families” of VAAs can be distinguished:

The *Stemwijzer* family, based on the Dutch example, is used in many other countries. Its best-known representative must be the German *Wahl-O-Mat*.² *Stemwijzer* versions have also been employed in France, Italy and Bulgaria. The *Stemwijzer* is a reliable and simple voting aid, characterised by a high degree of user-friendliness.

The second family is based on the *Kieskompas*³, also developed in the Netherlands and in direct competition with the *Stemwijzer*. The *Kieskompas* differs from the *Stemwijzer* in that the positions of the parties with respect to political issues are not identified by means of questioning but rather by means of an analysis of the programmes of parties and election campaigns. In addition, the *Kieskompas* makes use of a diagram in a two-dimensional system of coordinates rather than a list for the results obtained – in other words it provides a kind of map of the political space. This family comprises the *EU Profiler*⁴ (a VAA for the EU elections of 2009), the Canadian *Vote Compass*⁵, the Portuguese *Bussola Eleitoral*⁶, a Turkish version⁷ and the US-American *Electoral Compass*⁸.

The third family, finally, has its origins in Switzerland. In 2003 *smartvote*⁹ began to operate and it has since been used in Scotland, Bulgaria, Lithuania, Luxembourg¹⁰ and Austria¹¹. *smartvote* is a relatively complex online-voting aid to handle, containing a simple list presentation and two different graphical presentations detailing the party positions. In addition, *smartvote* enables voters to compare their own positions not only with those of the parties but also with those of the individual candidates.

7.1.2 Who develops and operates VAAs?

Most VAAs have their origins in the context of universities. Scientists interested in electoral and party research are often strongly involved. Early on, institutions engaged in civic education expressed their interest. They then employed VAAs in the context of informing people and as an instrument to

2 Cf. <http://wahl-o-mat.de> (22.01.2012).

3 Cf. <http://www.kieskompas.nl> (22.01.2012).

4 Cf. <http://www.euprofiler.eu> (3.2.2012).

5 Cf. <http://votecompass.ca> (3.2.2012).

6 Cf. <http://www.bussolaeleitoral.pt> (3.2.2012).

7 Cf. <http://www.oypusulasi.org> (3.2.2012).

8 Cf. <http://www.electoralcompass.com> (3.2.2012).

9 Cf. <http://www.smartvote.ch> (3.2.2012).

10 Cf. <http://www.smartvote.lu> (3.2.2012).

11 Cf. <http://www.politikkabine.at> (3.2.2012).

strengthen the political participation of young and new voters (Fivaz/Nadig 2010). This is typically and ideally the case for the *Stemwijzer*, the *Wahl-O-Mat* and the Austrian *Wahlkabine*¹².

Smartvote works in close conjunction with various universities, though it has been developed and operated by a non-profit organisation, while *Kieskompas* is a project of a market-oriented enterprise. Online voting aids are also employed in new democracies in the context of projects aimed at establishing or furthering democracy and as such they are often financed by state agencies for cooperative development or by NGOs. This was the case in the transitional countries of Eastern Europe and more recently in certain countries of the Middle East against the background of the Arab spring. In 2011, versions of both *Stemwijzer* and *Kieskompas* were employed in Egypt, Tunisia and Morocco.

More and more often, the media get involved with online voting aids. For one thing, VAAs can be integrated directly into the websites of a media enterprise; for another, data captured in the VAAs such as the various positions of parties on a particular issue can be integrated into the reporting on electoral campaigns. The Belgian *Stemtest* for instance was developed by several universities at the request of a television channel and was subsequently used in several television shows built around it and preceding the elections (Nuytemans et al. 2010).

Rather unusually, certain political interest groups or even parties themselves operate online voting aids (Ruusuvirta 2010; Skop 2010). Such voting aids should be met with the greatest scepticism. Essential standards of all respectable online voting aids they must be politically neutral and nonpartisan can hardly be expected when political actors operate their own VAAs. However, such VAAs have remained isolated cases, not least because they are not sufficiently accepted by voters.

7.2 Differences between VAAs

Even though their basic structure is always the same, the various VAAs sometimes differ considerably in the details of their mode of functioning and the methods applied.

At first, we can distinguish between candidate-oriented and party-oriented VAAs. The overwhelming majority of VAAs belong to the party-oriented type, i.e. they offer the voters a comparison with the parties and not with the individual candidates. This reflects the reality of the electoral systems of many countries in which one can vote for parties but not directly for candidates. In some countries, electoral systems are used which make use of

12 Cf. <http://www.wahlkabine.at> (3.2.2012).

open lists and other elements allowing the direct election of individual candidates. Switzerland and Luxembourg offer the voter the possibility of compiling a list of candidates from different parties. In Finland – to cite a further example – one can vote for one party only, but with the freedom to change the ranking order of candidates within the list according to personal preferences. In such countries, VAAs are often employed which enable not only a comparison between voter and parties but also between voter and candidates. Hence, with respect to the architecture of a VAA the specific voting system is of prime importance (Ladner et al. 2010: 92).

Core element of all VAAs is the questionnaire or catalogue of issues on which basis the matching procedure is operated. The choice of issues considered is therefore a central criterion of quality (Walgrave et al. 2009). As a rule, the issues are selected by political scientists in a multi-step procedure. In the case of the German *Wahl-O-Mat* a group of young and politically interested voters are involved in addition to the scientists (Marschall/Schmidt 2010). Statistical procedures are widely used to ensure that the catalogue of issues is adequate in splitting up the different parties. The most scientific and elaborate procedure by far is applied for the Belgian *Stemtest*. A catalogue of 70 questions is compiled and then reduced to about 30 definitive questions by means of complex statistical procedures and with the aid of computer simulations (cf. Nuytemans et al. 2010 for a detailed description of the procedure). VAAs also vary as to the size of the questionnaire which usually contains about 30 questions. *smartvote* with up to 75 questions features the largest questionnaire of all VAAs.

Answer options and weighting possibilities play an important role besides the design and size of the questionnaire. As for answer options there is a distinction between those with a neutral answer (e.g. “don’t know” or “no answer”) besides a “Yes” and a “No” answer and those without a neutral position. A second distinction concerns the degree of scaling. There are VAAs where certain questions can only be answered in the positive or negative while others allow answering in more detail along multi-step Likert-scales. Often the possibility is given of weighting certain questions or even entire areas of issues or of defining certain questions as “killer” criteria (i.e. in these areas a party must agree with the answer of a voter in order to be included as a recommended choice).

A further distinctive feature is the way in which positions of parties or candidates are identified. Two procedures are in use: the direct questioning or the analysis of election programmes by experts. Both procedures have advantages and disadvantages. When surveys are conducted it must be noted that parties and candidates may display a strategic behaviour by answering questions in order to appear in the best possible light. This problem will be addressed further in section 7. While the problem of strategic behaviour does not arise in the analysis of election programmes there are other challenges to be dealt with. It may happen that certain policy fields are not covered by the

election programmes of all parties and in the case of small parties an explicit election programme may not even exist. A special case is presented by the *EU Profiler* which was developed for the EU elections of 2009. It consisted in a version of *Kieskompas* which was supplemented by elements taken from *smartvote*. For instance, both procedures for identifying party positions were employed (Trechsel/Mair 2011). A definitive judgment cannot be made as to which procedure is to be preferred. In practice it has been shown that the majority of VAAs operate with direct questioning. This is particularly true of VAAs like *smartvote* which identify the position of each individual candidate.

Different methods are also employed in the calculation of the congruence between party or candidate profile and voter profile. Often, simple measures of distance are employed such as the City Block model or Euclidian distance. From a purely methodological-mathematical point of view there are models which are better suited but the distance-based models have the advantage of being more transparent to the voter and easier to understand (Marschall/Schmidt 2010). This is an important aspect as VAAs depend on voters trusting them. It is difficult to trust a voting aid whose methods of calculation resemble a black box.

A final difference between VAAs lies in their presentation of results. A ranking of parties according to their congruence with the voter is common to all VAAs. This ranking is usually presented graphically by means of bar charts. Additionally, presentations of left-to-right axes and multidimensional political spaces are employed. In multidimensional presentations, on the one hand, two-dimensional coordinate systems/maps are employed. They comprise not only a left-to-right axis but also a liberal-conservative axis or a so-called GALTAN-axis (green/alternative/liberal-traditional/authoritarian/nationalist). VAAs of the *Kieskompas* family apply this kind of presentation. On the other hand, some VAAs also employ spider web graphs, which present political positions along up to eight axes (e.g. *smartvote* with the following axes: openness in foreign policies, liberal economic policies, restrictive financial policies, law and order, restrictive migration policies, elaborate environmental policies, elaborate welfare system, and liberal society).

It can be said that different VAAs have very different ways of dealing with design and methodology. Studies have shown that not only the composition of the questionnaire (Walgrave et al. 2009, Nuytemans et al. 2010) but also the matching procedure (Louwerse/Rosema 2011) have a significant influence of the results. The question thus arises whether there is a right and a wrong method and whether some VAAs issue good or bad electoral recommendations. Research has not yet found definitive answers to these questions, probably because there is not a single correct approach but several possible approaches which lead to differing but perfectly correct electoral recommendations.

7.3 Increasing popularity

The use of online voting aids has increased considerably in recent years. The Dutch example shows this particularly well. In 1998 the first *Stemwijzer* website was used 6,500 times. For the 2002 elections, over two million voting recommendations were registered, and for the 2006 elections as many as 4.8 million (de Graaf 2010: 41-42). For the 2010 elections the figure fell to 4.2 million due to competition with *Kieskompas*, which was used 1.5 million times (Louwerse/Rosema 2011). Thus, the number of voting recommendations issued in 2010 corresponds to more than 50% of the Dutch voters.

Similar developments can be observed in other countries. In Germany, *Wahl-O-Mat* was in operation for the first time for the parliamentary elections in 2002 and used 3.7 million times. For the 2009 elections 6.2 million voting recommendations were recorded, which corresponds to about 12% of voters (Garzia 2010: 14). In Switzerland, *smartvote* began operating for the parliamentary elections in 2003 and issued 255,000 voting recommendations. Four years later the number rose to 963,000 and in 2011 as many as 1.2 million voting recommendations were issued. In other words, usage rose from five to over 23% in eight years.

Even though this development is impressive, these figures must be met with caution. The number of voting recommendations issued does not in itself indicate the number of users. Some scientific studies are thus based on lower user figures (Ladner 2009). The example of *smartvote* and the figures for the 2007 elections in Switzerland help to show this. In 2007 there were 4.9 million voters in Switzerland, 2.4 million of which took part in the elections. *smartvote* was used 963,000 times. However, many voters used *smartvote* several times in the course of the electoral campaign and asked for voting recommendations for more than one constituency. With the help of server statistics a clearer picture was gained and an estimate was made according to which between 350,000 and 375,000 people had in fact used *smartvote*. This figure corresponds to seven to eight per cent of voters (Ladner et al. 2010). Interestingly, this estimate can be confirmed by the results of the Swiss electoral study *Selects* based on a representative survey of voters which included the question whether they used *smartvote*. If a figure of 350,000 users is assumed and if this figure is put in relation to the total figure of citizens entitled to vote the percentage of users drops from 23 to seven per cent.

To what extent user figures for other countries also need to be adjusted downwards is difficult to estimate. There are no uniform standards defining how the use of VAAs can be quantified in a reliable way. In order to prepare much-needed data sets which can be compared internationally it is necessary to take measures when evaluating the data of the websites of VAAs (e.g. by means of cookies; Marschall/Schmidt 2010) and to apply standardised procedures when analysing the data.

Even though the user figures need to be somewhat adjusted, the rapidly growing popularity of online voting aids still demands an explanation. Clearly, the widespread use of the Internet is partly responsible. In many European countries more than 80% of the population have Internet access. It also has to be noted that VAAs often enter into partnership with the media – and they are sometimes operated by the media – which increases their popularity enormously. And it can be argued that the logic of VAAs corresponds to the *Zeitgeist* of an increasingly individualised society: VAAs offer personalised information which the traditional media and information channels cannot supply.

A further reason for the popularity of VAAs can be found in the structural changes of voting behaviour. Electoral research has shown that voters try to reduce the complexity of voting decisions by means of shortcuts (Dalton/Wattenberg 1993: 196). Two of the most important voting aids were originally the social classes or groups (e.g. adherence to the working class or to a religious group) and the proximity to a particular party. Especially the identification with a party tended to minimise the efforts involved in voting decisions. As a worker one would vote for the social democrats and as a catholic for a catholic party. In the 1970s, this began to change dramatically in the Western industrialised countries. The working class, for instance, has lost some of its significance, and so has adherence to a particular religious group. Industrial societies have become service-based societies, globalisation has had a huge impact and geographical mobility has increased hugely. There has been movement in all directions and the social stratification has gradually lost its structuring effect (Garcia 2010). These developments have also led to changes in voting behaviour. In the course of a de-alignment process, ties to political parties have loosened, parties have lost members and the number of voters switching from one party to another is growing steadily (Dalton/Wattenberg 2002). Today, voters pay more and more attention to issues and political position or to the record of achievements of parties and candidates. It is evident that online voting aids correspond well with the informational needs of the more individualised and issue-oriented voter.

A final reason for the popularity of VAAs lies in the specific voting systems and party systems of the various countries. Particularly in countries with a candidate-oriented electoral system (such as Switzerland and Finland) and a strongly fragmented party system, voters find it much harder to gain sufficient information about the positions of parties and candidates (Nuytemans et al. 2010). In these countries, VAAs and the reduction of complexity and informational costs they offer correspond well to a service that is much sought after (Ladner et al. 2010b and Ruusuvirta 2010).

Against this background we can assume that VAAs have yet to fulfil their potential. User figures will continue to increase though maybe less sharply than before (Cedroni 2010).

7.4 Who is using VAAs?

When political science began to take an interest in VAAs, one of the first questions was who uses these new tools. As in other areas of research on e-democracy, the issue of the so-called *digital divide* was one of the dominating aspects within VAA-related research. It was feared that only a very limited circle of voters would have access to VAAs (Cedroni 2010 and Trechsel 2007). And in fact, the users of online voting aids are far from representing the voters at large.

In a number of countries, surveys were made among VAA users. All studies arrive at almost identical conclusions with respect to the socio-demographic features of the user groups (Fivaz/Nadig 2010, Fivaz/Schwarz 2007, Marschall/Schmidt 2010; Wall et al. 2009). The typical VAA user is male, young, and well educated. It is of no surprise that the typical VAA user has much in common with the typical Internet user.

These findings have been confirmed by the results of a representative survey among Swiss voters in 2007 (Fivaz/Nadig 2010: 181). As regards age groups, the 18- to 35-year-old users are overrepresented by 13%. But it is interesting to note that only the age groups above 65 years are clearly underrepresented. It has also been shown that the biggest differences are not found among the gender or age groups but among the education level groups and, closely tied to these, the income groups. The only significant difference with studies from other countries is the proportion of women among the *smartvote* users which at 44% is just 2% below the proportion of women among the voters. According to other studies, the proportion of women is about a third of all users (Wall et al. 2009).

With respect to the danger of a *digital divide* it can be noted that there are signs of normalisation, i.e. the socio-demographic profiles of VAA users and voters in general are becoming more alike. In the course of the years, discrepancies between gender and age distribution have decreased noticeably (Ladner et al. 2010).

In the studies on the characteristics of VAA users their political profiles have also been captured. Here, too, the results across different countries are closely comparable. The typical VAA user is very strongly interested in politics and can be said to have a political knowledge that is way above average – not only compared to the entire population but also compared to the voters (Fivaz/Nadig 2010). In view of their electoral behaviour, up to 90% of VAA users state that they will participate in the elections (Marschall/Schmidt 2010: 78). In addition, it can be shown by means of Swiss data that VAAs are particularly popular with swing voters and voters with loose party ties (e.g. first-time voters) (Fivaz/Nadig 2010; Ladner et al. 2010b). As regards the proximity to the parties, in 2007 *smartvote* was used more frequently by voters of the left and middle-left parties than voters of the right and conservative parties (Ladner et al. 2010). This gives rise to the question whether VAAs can

take an influence on the electoral behaviour of voters and on the election results.

7.5 The impact of VAAs

In view of the ever increasing use and importance of VAAs it is surprising that the question whether they have an influence on the electoral behaviour of their users has only moved to the foreground of VAA research in the past two or three years. Indications for such an influence have already been visible for some time. In Finland, for instance, before elections VAAs are the most important source of information for young voters (Ruusuvirta/Rosema 2009: 2). In Switzerland surveys among the users of *smartvote* show the crucial role of this website with regard to the information gathering and processing: 86% of *smartvote* users have referred to it as an important source of information, while other online media were relegated to second position with 68% of users; television channels and newspapers jointly took third position with 61% each (Ladner et al. 2010: 115).

With respect to the impact on electoral behaviour, three questions can be posed (Garzia 2010: 23): First, do VAAs change the way in which users get hold of relevant information on elections and the way in which they handle this information? Second, do VAAs have an impact on electoral participation? And third, finally, do VAAs have a direct influence on the electoral decisions of their users and on the election results?

As for the impact on the way in which users get hold of and treat information, the so-called cognitive effects, several studies arrived at clear and positive results. Marschall/Schmidt (2010) showed that in Germany about 60% of people interviewed have been stimulated by *Wahl-O-Mat* to look for further information on the elections in general and on the parties and their positions in particular. 70% even claimed to have discussed the received voting recommendation with family members or friends. It is of particular interest that even among those users who hardly talk about politics, 63% were stimulated by *Wahl-O-Mat* to discuss the elections with others (Marschall/Schmidt 2010: 83-84). Comparable figures also exist for Switzerland and thus confirm the German results: 55% of Swiss VAA users went on to look for further information and 70% were led to discuss the elections with other people (Ladner/Pianzola 2010).

The rise of the Internet and the expansion of new possibilities of an electronic democracy are not greeted with enthusiasm by everyone. There are also sceptical and critical voices to be heard. It is feared that the introduction of e-voting and other online services – as for instance VAAs – could lead to an instant democracy of sorts, in which the voters deal with political contents and actors in a hasty and superficial fashion. Instead of contact and exchange

with other human beings, information would be drawn almost exclusively via the computer. The electoral choice itself would also be largely delegated to the computer (e.g. Buchstein 2004).

Fortunately, research on VAAs shows that these fears are not substantiated. As has already been shown, VAAs have led their users to look for further information elsewhere and to discuss the elections increasingly with others. Besides political knowledge and interest, which is strengthened by the use of VAAs (Garzia 2010: 22), it has further been shown that users do not accept voting recommendations uncritically (Fivaz/Nadig 2010). Often the voting recommendations are simply taken as a starting point for further reflections in the course of finding a decision. Thus the first question can be answered in the positive.

In many Western countries, low or declining voter turnout can be observed. Even if it is clear that technological progress alone cannot increase rates of political participation, it is nevertheless a hope which is time and again expressed not only in connection with the introduction of e-voting but also in the context of the widespread use of online voting aids (Cedroni 2010: 256).

A series of studies based on user interviews has looked into the question whether the use of VAAs leads to an increased participation rate. These studies all conclude that there is a positive effect on participation; however, the figures found differ strongly depending on country and study. For Finland it can be shown that the use of an online voting aid increases the probability that the user participates in the elections by up to 23%. For Switzerland, the corresponding figure is 15%, for the Netherlands it is 12% and for Germany it is 8% (Garzia 2010; Ladner/Pianzola 2010).

On the basis of these results alone it is difficult to estimate how big an impact VAAs have on actual participation. The studies were based on direct interviews with users. These tend to overestimate the impact of VAAs when asked directly. It must also be taken into account that some of the users would have taken part in the elections without the VAAs. Cautious estimates conclude that *smartvote* increased the participation in 2007 in Switzerland by 0.6 to 1.0% (Ladner/Pianzola 2010: 220).

Just as for the testing runs for e-voting systems, VAAs have been shown to have only a slight impact on electoral participation rates (Ruusuvirta/Rosema 2009). An important explanation may have to do with the fact that these instruments are primarily preaching to the converted (Norris 2003). Among the VAA users those groups are overrepresented which are already characterised by an above average participation rate (e.g. those with a strong interest in politics). Even for VAAs it is difficult to persuade those who do not take part in elections to show an interest. Among young and first-time voters it appears to be possible to some extent to further their interest in politics and their electoral participation by means of online voting aids (Fivaz/Nadig 2010).

From the perspective of the public and above all from the perspective of the parties and other political actors, the question of the impact of online voting aids on the electoral decisions of their users is of course very important. If this question is put directly to the users, it appears perfectly plausible that there is a considerable impact of VAAs on the electoral decisions of their users. About 70% of users interviewed stated that *smartvote* had directly influenced their decisions (Ladner et al. 2010b). This is an unusually high figure, which, however, mirrors the complexity of the Swiss electoral system and the far-reaching possibilities involved in voting compared to other countries.

For this reason it was asked more precisely in which way the *smartvote* recommendation had an impact on the voting decision. Only 15% of those asked stated that they had adopted the recommendation in its entirety and copied it onto the ballot paper. The other users adopted the recommendation only partially. For instance, they listed candidates from different lists on their ballot paper (so-called “*panaschieren*” or mixing) or they listed candidates with a particular proximity twice and thus gave them two votes (so-called “*kumulieren*” or cumulating). Very many users stated that on the basis of the recommendation they voted for candidates they had previously not known and would therefore not have voted for. And about a third of users claimed to have consciously not voted for particular candidates on the basis of the recommendation received (cf. Ladner et al. 2010).

The Swiss results can therefore only be interpreted against the background of the specific Swiss electoral system and they cannot be directly compared with results from other countries. In the remaining studies the question was asked whether the use of VAAs had led to voting for a party other than the one originally intended. The resulting figures vary strongly depending on the country. In the Netherlands, between ten (Kleinnijenhuis/van der Hoof 2008) and 15% of users (Aarts/van der Kolk 2007) claimed to have adjusted their electoral decisions due to the recommendation received. For Germany this figure is six per cent (Marschall 2005) and for Finland as low as three per cent (Mykkänen/Moring 2006).

These research results are viewed rather critically by the VAA researchers themselves. A series of considerable methodological difficulties gives rise to justified doubts as to their validity.

Most of the studies are based on surveys conducted before the elections. Correspondingly, what is captured are voting intentions and not real voting decisions. Hence a Belgian study has captured both voting intention and voting decision for the users of the VAA *Do De Stemtest!* by means of questioning before and after the elections. Among those users who said that the *Stemtest* had convinced them to vote for another party only two thirds effectively did so in the end. This study thus concludes that the evaluation of voting intentions is a very unreliable measure of the impact of VAAs. Post-election questioning leads to more reliable results (Walgrave et al. 2008).

A second point of criticism concerns the quality of the survey data. Most studies are based on online surveys of VAA users. Usually the users are asked on the VAA website after the recommendation is given whether they would participate in a scientific survey. Only few studies deviate from this pattern and use data from representative surveys of electoral research (e.g. Marschall/Schultze 2011 and Ladner et al. 2010). Most online surveys can neither produce representative data for the entire electorate nor for only the Internet users. As has been shown already, VAA users have a very specific socio-demographic and political profile. Furthermore, the decision of the user to take part in a survey is a form of self-selection calling into question whether the data are representative with respect to VAA users, if measures are not taken to control this effect (Marschall/Schmidt 2010). Addressing this criticism it has been tried to control the distortions of the various selection procedures by means of elaborate statistical methods (e.g. "Heckmann-model/-corrections") (Pianzola/Ladner 2011b, Vassil 2011a and 2011b). The findings of these studies show as before that VAAs influence the electoral decisions of their users but that previous studies have clearly overestimated these effects.

A further problem arises with respect to causality. Even if VAA users can be shown to vote for another party than originally planned, it cannot be concluded with certainty that this is due to the voting recommendation. It is perfectly possible that the electoral behaviour has changed for another reason. The only way of arriving at reliable results is by doing controlled experiments (Pianzola/Ladner 2011b and Vassil 2011b). During the elections in Switzerland in autumn 2011 such an experiment was conducted with *smartvote* users. The results however are not yet available.

In individual studies it has also been tried to measure the impact of VAA recommendations indirectly. This has not been crowned with clear results though. It can be shown that candidates who are recommended particularly often by *smartvote* also receive many personal votes during the elections. But individual candidates who are often low on the *smartvote* rankings may also finish with very good election results (Pianzola/Ladner 2011a).

7.6 Linking VAAs with e-voting systems

An aspect of VAAs that has hardly been addressed by research so far is the linking of VAAs with e-voting systems. At first glance this seems to be a risky proposal, but is this idea really so absurd? How would someone react if they were asked to fill in a booking form by hand or even appear in person at a travel agent's after having found a hotel or a flight online? This is exactly what 15% of *smartvote* users do today (Ladner et al. 2010). They answer the *smartvote* questionnaire online, receive a voting recommendation and then copy the names of the candidates by hand onto their ballot paper.

Of course, a hotel reservation cannot really be compared with casting a vote in an election and it would be irresponsible to propose such a far-reaching change to the voting procedure without thorough scientific studies which evaluate advantages and risks and propose necessary measures and safety mechanisms. The question still remains, though, why voters should be forced to copy the result of a fastidious electronic selection process by hand onto a ballot paper, above all when it is a matter of giving votes to a large number of candidates.

In Switzerland the linking of VAAs with an e-voting system has been tried once in a test run based on which first conclusions can be drawn. In the elections 2005 for the student council at the University of Berne, voting was only possible via an e-voting system. The operators of *smartvote* were asked on the one hand to develop this e-voting system and on the other hand to make *smartvote* available for these elections. The students then had two possibilities for casting their vote. They could visit the e-voting platform directly and compose their ballot paper according to the legal requirements usual in Switzerland. They then had to log in to cast their votes. The second possibility involved having a voting recommendation issued by *smartvote* which could be forwarded to the e-voting platform by means of a click. There the recommended candidates were inserted into a list. The students could then further adjust this list according to their preferences and finally log in to cast their votes.

The common offer of a voting aid and an e-voting system contributed to a threefold increase in electoral participation compared to the previous elections. At the same time, elections were held for the student council at the University of Zurich. Here an e-voting system was offered without any voting aids. The participation rate at the University of Berne turned out to be twice as high as the rate at the University of Zurich. This is an indication that the linking of the two online platforms can certainly have an impact on electoral participation. It seems that VAAs provide an added value making voting more attractive.

A juristic study has examined this test run at the University of Berne and has concluded that such a linking of VAAs and e-voting is in principle compatible with the constitutional and the election laws. This study further points out that the VAAs involved would have to be subject to conditions and clear quality standards, issued and controlled by the state (for instance in the form of a certificate) (Rütsche 2008).

On the one hand, government institutions in many countries are developing safer and more reliable e-voting systems. These systems are supposed to simplify the act of voting and render it more attractive. On the other hand, in recent years numerous VAAs have been created which offer the voters a real extra value in the form of additional information and time-saving (Garzia 2010 and Jeitziner 2004). A linking of the act of choosing with the act of voting makes perfect sense from a process-oriented point of view. For this very reason, scientists should address early on the challenges of such a step.

7.7 An open question: the quality of VAAs

Up until now, VAA research has above all been concerned with how often and by whom online voting aids are used and whether their use has an impact on voting participation or voting results. Publications dealing with questions regarding the quality of VAAs are very rare (e.g. Skop 2010; Walgrave 2009). VAAs are used by a large number of voters (cf. section 3). Even if it is still unclear how strongly they really influence voting decisions (cf. section 5) it is nevertheless clear that they have an enormous potential to influence the information flow and the information processing of the voters (Lau/Redlawsk 2006: 262). For this reason alone it is necessary that science takes a closer look at the quality of the recommendations offered.

In the studies so far published four aspects of quality are mentioned: The formulation of transparency requirements and a behavioural codex, the quality of the questionnaire employed as well as the quality of the matching methods used, and finally the question whether the answers given by the candidates and the parties for the VAAs can really be trusted.

From a normative and juristic point of view VAAs are committed to the principle of contributing to a free and authentic forming of opinion. Issuing a voting recommendation can however be seen as an intervention in this opinion-forming process. Even if it is often not declared openly, many VAAs would like to not only improve the information base of voters but also influence them towards a “better” voting decision (i.e. one more strongly governed by issues). As long as this is based on objective political information, issuing a voting recommendation is in no way reproachable but rather desirable as an additional offer of information (Rütsche 2008). The required objectivity however can only be guaranteed by a maximal transparency on the part of the VAAs.

VAAs cannot claim to stand for improved transparency in politics while operating like black boxes themselves. For this reason VAAs should not only make completely transparent their funding as well as who is responsible for developing and operating them but also the methods applied (Nuytemans et al. 2010 and Rütsche 2008). Only very few VAAs openly provide this information, often they do not even publish the matching algorithms employed (Louwerse/ Rosema 2011).

Over and beyond this they should also be committed to a correct behavioural codex, which guarantees equal treatment of all parties and candidates (Rütsche 2008). This is something that is often violated today. Often VAAs are not in a position to get hold of the required information for all the candidates or parties. For the 2009 elections in Belgium it was inevitable to exclude nine of a total of 17 parties from participating in the *Stemtest* because of a mismatch of work and the time available. Thus, only the eight parties which were already represented in parliament were included. The operators of *Stemtest* were aware that small and new parties were put at a disadvantage

but they found no better solution (Nuytemans et al. 2010: 130). Many VAAs know comparable trade-offs (e.g. the *Wahl-O-Mat*).

In practice one is still far from comprehensive transparency and an equal treatment of all parties. Originally it was expected that competing VAAs would have a positive effect on the quality of the offers and also improve transparency. In the meantime it has been admitted that this expectation was probably too optimistic. This raises the question whether the adherence to basic quality standards, as they have been called, should not be demanded and controlled by the state (Rütsche 2008).

A second important quality feature of a VAA is the questionnaire employed to capture the political points of view. Depending on how this is composed, completely different voting recommendations may result (Walgrave 2009). In principle it is clear that the questionnaire must address the current and politically relevant issues before the elections. In addition, the questions should be clearly formulated and easy to understand. Finally, they should be questions to which the parties give different answers (Marschall/Schmidt 2010: 67-68, Nuytemans et al. 2010; Walgrave et al. 2009: 1168).

The problem with these quality criteria is that there are hardly any objectively measurable indicators. Even in the Belgium system with its impressive and very elaborate procedure for the composition of the questionnaire (Nuytemans et al. 2010) a large number of questions are formulated and in a second step a comprehensive statistical simulation is undertaken to show which questions are to be omitted there is still a need for decisions which are made by means of estimates and experience rather than on an objective basis.

Comparable problems are also encountered in the context of the third quality feature. It is understood that the matching procedure is of importance. Louwersa/Rosema (2011) calculated voting recommendations based on the *Stemwijzer* data set combined with the matching procedures of different VAAs and showed that the different methods result in marked differences with regard to the parties recommended. They compared city block models, distance calculations by means of Euclidian distance, as well as different multi-dimensional spatial models. This resulted in differing voting recommendations for up to 90% of users!

As impressive as these findings are, it is difficult to translate them into concrete recommendations. It cannot be said that one of the tested methods calculates the issue congruence “wrongly” or “better”; they simply calculate it “differently”.

The fourth quality feature that is often criticised concerns the question how reliably and honestly parties and candidates answer to the VAA questionnaire. It can of course be assumed that parties and candidates try to position themselves strategically well. In the Netherlands, parties have openly admitted this and it has subsequently been discussed in the media. In Switzerland, the parties provide their candidates with advice as to how to respond to the *smartvote* questionnaire in cases of doubt (Ladner et al. 2008). In the

cases of a Lithuanian VAA it has even been criticised that the online voting aid supports populist parties and puts these at an advantage, as they adapt their responses to the current public opinion and have no scruples to change them again after the elections (Ramonaitė 2010).

Precisely on this subject there are also well supported empirical findings which contradict the image of the politician who promises one thing before the elections and does something very different afterwards. A Swiss study (Schwarz et al. 2010) shows that the statements or political stances taken for a VAA can in fact be relied on. The starting point was 34 questions used by *smartvote* which after the elections led to discussions and votes cast in parliament. The study compared the pre-election statements of the elected members of parliaments which they had made for *smartvote* with their effective post-election behaviour. In 85% of cases the parliamentarians' behaviour corresponded to what they had promised before the elections, and this can be considered a very high figure indeed. A comparable study of a Czech VAA arrives at somewhat lower figures of congruence between VAA answers and voting behaviour. The question arises whether the problem of insufficient congruence between pre-election promises and post-election actions is really a problem of VAAs. It could be a general problem especially of "young" democracies in Eastern Europe (Skop 2010: 216), in which party structures and the very complex processes of a democracy have yet to be solidified. VAAs can thus be regarded as a part of the solution rather than as a part of the problem insofar as they increase the transparency in this context and support a systematic control of electoral promises.

7.8 Conclusions and future developments

In European countries online voting aids today constitute a solid component of electoral campaigns. It can be assumed that their user numbers will increase in the years to come. After a somewhat timid start, research on VAAs has intensified in terms of both quantity and quality. It is known today which voter groups use VAAs and it has been shown that VAAs lead to positive effects on voter turnout. In particular, research has also shown that the voting recommendations issued influence the electoral decisions of voters.

There remain, however, certain research gaps which should be filled in the years to come: It has been shown that there are substantial differences between the findings of different countries. The most important reasons for this are bound to be the possibilities of the voting systems at issue (e.g. whether parties only or individual candidates can be elected) as well as the differing party systems. It would be good if research could focus on these differences and launch more internationally comparative studies. But this would also necessitate uniform standards for surveys within the group of VAA researchers,

as is already the case for electoral research with the CSES study.¹³ It has furthermore been shown that the available data sets are not in all cases convincing. Increased international networking and exchange would certainly lead to improvements in this respect.

In analysing the impact of VAAs it has been shown that surveys alone cannot answer all questions. If a detailed analysis is required as to how VAAs influence the decision-making of voters it is necessary to work with experimental research methods.

Finally, the growing significance of VAAs with respect to the political reality requires that research focuses more than before on the question what constitutes the quality of a voting recommendation and how VAAs can be further elaborated and improved.

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13 Cf. <http://www.cses.org> (25.01.2012).

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