

ITA
INSTITUTE OF TECHNOLOGY ASSESSMENT

manu:script

Can the Internet Swing the Vote?

Results from a study of the 2007
Danish parliamentary election

Jens Hoff

pub.oew.ac.at/ita/ita-manuscript/ita_08_02.pdf



OAW
Austrian Academy
of Sciences

Vienna, 11/2008
ITA-08-02
ISSN 1681-9187

Can the Internet Swing the Vote?

Results from a study of the 2007 Danish parliamentary election

Jens Hoff

Department of Political Science, University of Copenhagen,
Øster Farimagsgade 5, DK-1353 Copenhagen K., Denmark

Keywords

political Internet use, parliamentary election, political effects of Internet use, web 2.0,
political interest, political media

Abstract

This article investigates whether political use of the Internet affects users politically. Using a combination of log- and survey data from a study of Internet use during the Danish 2007 parliamentary election, and inspired by theories on agenda setting and on the active/interactive user, three hypotheses are tested: 1) that those who use the Internet most intensively politically are also the most politically affected, 2) that “net activists” (web 2.0 users) are affected more by their political Internet use than “information seekers” (web 1.0 users), and 3) that those who are somewhat or little interested in politics are those most affected by their political Internet use in an election period. All three hypotheses are verified with some modifications. Furthermore, it is demonstrated that socio-demographic factors like age, gender, education and income are of little importance in explaining variation in how voters are affected by their political Internet use. Rather, the level and type of political activity on the Internet and political interest seem to be the most important factors in explaining the degree to which voters are politically affected by their Internet use.

Table of Contents

1	Introduction	3
2	Theoretical point of departure and analytical design.....	4
3	Some general characteristics of the study	7
4	Are persons who use the Internet politically more affected by their use than other Internet users?	10
5	Do the effects of political Internet use depend on what sites one chooses to visit?	12
6	Does political interest matter for the effects of political Internet use?	14
7	Discussion	15
8	Conclusion	17
9	References.....	19

Presentation given at the Institute of Technology Assessment of the Austrian Academy of Sciences (ITA), Vienna, November 18th 2008.

MASTHEAD

Media owner:

Austrian Academy of Sciences (OAW)
Legal person under public law (BGBl 569/1921 idF BGBl I 130/2003)
Dr. Ignaz Seipel-Platz 2, A-1010 Vienna

Editor:

Institute of Technology Assessment (ITA)
Austrian Academy of Sciences
Strohgasse 45/5, A-1030 Vienna
<http://www.oeaw.ac.at/ita>

ITA manuscripts appear at irregular intervals and publish working papers and talks from staff members as well as guests. ITA manuscripts are exclusively made available to the public via the Internet portal "epub.oeaw":

<http://epub.oeaw.ac.at/ita/ita-manuscript>

ITA manuscript Nr.: ITA-08-02 (November/2008)

ISSN-online: 1818-6556

http://epub.oeaw.ac.at/ita/ita-manuscript/ita_08_02.pdf

© 2008 ITA – All rights reserved

I Introduction

From a feeble start in 1994 and till now election campaigns on the Internet have developed from being an exotic and little noticed phenomenon to a central component in all parliamentary and presidential elections in important parts of the world (Bimber & Davis 2003; Howard 2005; Foot & Schneider 2006; Lee & Park 2008). The growth in Internet campaigning can be observed both in terms of the number of parties and candidates using the Internet for campaign purposes and their increased level of sophistication in doing so, as well as in the ability of events on the Internet to increasingly set the political agenda of the campaign. This last feature reflects the increased attention of journalists as well as the public to what is happening on the Internet, and their increased observation of, and participation in the activities. As many observers have noted, the use of the Internet for campaigning took a qualitative leap after Howard Dean's successful use of especially the social facilities of the Internet during his 2004 campaign to become the Democratic Party's presidential nominee (Graff 2006). In this campaign the strength of the net in terms of mobilizing supporters, raising funds, as well as creating networks among the supporters themselves was amply demonstrated. That the lesson has been well learned became very visible in Barack Obama's Internet campaign (Pew Internet and American Life Project 2008).

What we know less about are the effects these campaign activities have on the persons exposed to them. Assuming that the most important thing candidates want to obtain by campaigning on the Internet, as well as elsewhere, is to have people vote for them, it is relevant to ask whether such campaigning is actually capable of shifting the vote?

A straightforward answer to this question is not possible for several reasons. Firstly, an answer would demand that it is possible to isolate the effect of Internet campaigning from the effects of campaigning through other media. While such isolation might be simulated in an experimental setting, it is not possible to achieve in a "real life" situation. Secondly, whether voters actually change their voting preferences or not demand longitudinal studies where a person's vote at one election is compared with the same person's vote at the following election. While such (panel) studies are quite common within political science, longitudinal studies of Internet behavior, not to speak of effects of Internet behavior are still rare in the field of Internet studies.

However, what I can do with the data at hand (see below) is to approach the question of whether the Internet swings the vote by looking at *whether the political use of the Internet affects users politically*. If this is the case, it is taken as a strong indication of the ability of Internet campaigning to actually make a political difference.

A search for literature explicitly dealing with the question of whether political use of the Internet affects users politically shows that this area is very little researched. There are a few studies in the area (Johnson & Kaye 2003; Pew Research Centre 2000; Weise 2000), which pose the same type of question as this article, but their evidence is mixed and rather inconclusive. However, the study on which this paper is based is able to take research in the area a step forward. The study produced a unique set of data covering the Danish parliamentary elections in November 2007. Thus, for the first time in Denmark, it was registered exactly how a panel of 5080 persons used the Internet during an election campaign period (whole month of November, election was November 13th). All persons in the panel have had a piece of software installed on their computers, which registered all their activities on the Internet. As we were only interested in the political part of this activity only political Internet activities have been coded. Furthermore, a part of this panel (980 persons) agreed to answer an electronic questionnaire, with questions concerning how respondents perceived their use of the net during the election campaign, what effect this use had on their considerations about how to vote, what other media they used to get informed about political issues, etc.*

* The data of the study have been produced in a collaboration between The Association of Danish Interactive Media (FDIM), which is a trade organization organizing the biggest Internet media companies in Denmark, and associate professor Lisbeth Klastrup, the IT-University, Copenhagen, associate professor Jakob Linaa Jensen, Department of Information and Media Science, Aarhus University and the author of this article. The data used here have been weighted so that the panel (the 5,080 persons) are representative of the so-called gemiusAudience panel in terms of gender, age, income and education. This panel is a very precise representation of the Danish Internet population, which constitutes 83% of the total population (persons from 16 years and up, who had access to the Internet from their home in mid-2007. Overall access is 86% (see Danmarks Statistik 2007). The panel consists of persons who, for a certain time period, have agreed to install a small software program on their private computers, which registers all URL-addresses that the person has visited, when the visit has taken place, the number of time spent on the site, number of pages visited, etc. These data are, in an anonymous form, reported to a central "count unit" (server). As the panellists are persons who have allowed all their Internet traffic to be logged (in an anonymous form), and have not done so to particularly participate in our project, we don't expect the log data to have any "social desirability" (or non-desirability) bias. This is in contrast to the survey data which can be assumed to have such bias (see below). For a more detailed account of sampling method, the data used, etc. see Linaa Jensen et al. (2008).

2 Theoretical point of departure and analytical design

Two theoretical frameworks form this paper. The first one is agenda setting theory (Dearing & Rogers 1996; McCombs 2004; Brink Lund 2002), and the second one is theories about the active/interactive user (Hall 1980; Zaller 1992, 1996; Cover 2006).

The theories about agenda setting are not used actively, but just to refer to the fact that these have convincingly demonstrated firstly, that the media are very influential in determining what issues people should think about (setting the agenda, "priming" certain issues), and secondly that they are also quite successful in determining from which angle people should see these issues ("framing" our perception of reality; see for example Brink Lund 2002). Based on these research results our point of departure must therefore be that it is absolutely possible that political websites can affect users politically.

Concerning theories about the active/interactive user such theories seem particularly pertinent in relation to the Internet, where especially the web 2.0 facilities or the so-called "social Internet" (Facebook, YouTube, Myspace, Flickr, wikis, blogs, tagging etc.) has increased the possibilities for interactivity between the sender and the receiver of a message or between receivers/users considerably. The question about what the characteristics of users or user groups means for their media use, and thus for the reception of political information, was analyzed already by the Centre for Cultural Studies in Birmingham in the 1970's (see for example Hall 1980). In this article I am, however, inspired by especially Zaller (1992, 1996), who is more explicitly concerned with how political information is received.

Zaller's theory about how opinions are shaped tells us that "every opinion is a marriage of information and predisposition: information to form a mental picture of the given issue, and predisposition to motivate some conclusion about it" (Zaller 1992:6). Thus, political opinion is shaped in the interplay between the flow of political information and the prerequisites and pre-understanding of the individual. The importance of a given amount of political information for an individual depends on the person's "political awareness", which is defined as "an individual's reception and comprehension of communications from the political environment" (op.cit.:21). Political awareness is char-

acterized by how much political knowledge and interest a person possess. Thus, according to Zaller if a person has a high degree of political knowledge and interest, that person will also be more prone to seek out political information than the not-so-politically-interested voters. A person who registers and absorbs more political information than others will also, according to Zaller, be more exposed to political messages, and there will be a higher likelihood that the political opinions of that person are affected. However, Zaller also stresses that predisposition play a role in the sense that a person who has carefully considered his/hers values and attitudes have more stable political opinions than others.

These two tendencies seem to run counter, because there is often a relationship between being politically interested and having stable political opinions: “Political awareness is associated with increased exposure to current communications that might change one’s opinion, but it is also associated with a heightened capacity to react critically to new information” (op.cit.:21). Thus, the presence of the two tendencies hinges on the intensity of the political information, as this varies in amount as well as in its ability to reach the population. In periods with *low intensity* the opinions of the politically interested will be more affected by political communication than the non-politically interested. The reason for this is that the politically interested will seek out and be exposed to a greater amount of information than non-politically interested persons, who will probably not do much of an effort to seek out such information. However, in periods with *high intensity* of political information, such as for example elections politically interested persons will be less affected by political information than the non-politically interested. The reason for this being that in high intensity periods no one will be able to avoid political information, as “elections are political events of such importance ..., that at least some of the messages of the campaigns will reach almost all voters” (Hansen et al. 2007:76). Thus, in these periods the amount of political information will be more evenly distributed among politically and non-politically interested persons. Also, as the politically interested have clearer and more stable political opinions, this will counter an eventual effect from the election campaigns. In contrast to this, the not-so-politically-interested will not be able to sort information in the same way. Thus, the process by which the less politically interested voters become aware of their opinions therefore does not really start till the information-intensive election periods, in which they will be more easily influenced.

Where Zaller, as well as the Cultural Studies Centre before him put their emphasis on what importance differences between groups of recipients have for how recipients are affected politically, the perspective here is somewhat different. Thus, as my perspective is on how different forms of political Internet use affect users/voters, Internet use is seen as the independent variable. Different types of political effects are therefore the dependent variables. However, we take Zaller’s theory into consideration in the sense that users’ political interest¹ will be considered as an intermediary variable. This means that the analytical model looks like Fig.1.

¹ Zaller’s concept of “political awareness” includes political knowledge as well as political interest. However, as there is no information about political knowledge in the data, I will use political interest as a proxy for “political awareness” in the following.

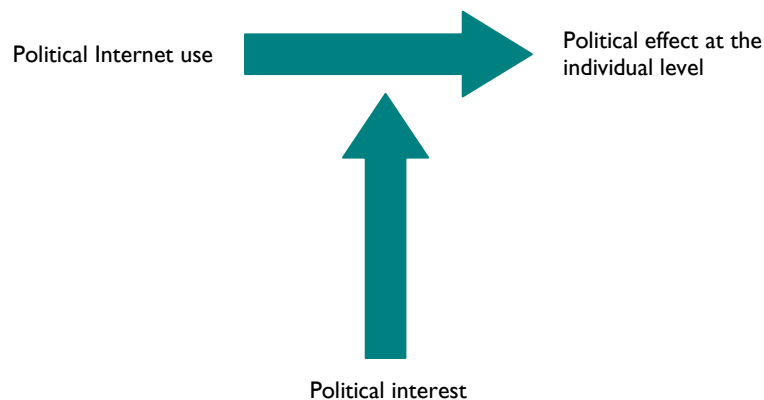


Figure 1: A simple analytical model.

This model, as well as the considerations above, gives rise to three hypotheses, which will be tested in the following:

- H1:** The degree of political influence will depend on how much one uses the Internet politically. Those who expose themselves *intensively* to different kinds of political information on the Internet will be more affected than those who do so less intensively.
- H2:** The degree to which a person is politically affected depends on *what kind* of political websites the person uses (this will be tested by looking at different user profiles).
- H3:** Those who are somewhat or little interested in politics will be more affected politically, than those who are highly interested (as we are studying an election period this should be the case according to Zaller).

Before these hypotheses are tested (paragraphs 4, 5 and 6) it is, however, necessary to take a brief look at some general characteristics of the data.

3 Some general characteristics of the study

If one takes a look first on what political websites the participants in the panel have visited during the election period it is noticeable that very few sites were visited by more than 10% of the panel participants. Those sites visited by the highest number of panelists were the election websites of different “mainstream media” (newspapers and television), which were visited by 16.2%. At the top of the list we find the so-called “election tests” or “election quizzes” which were visited by 16.8% of the panelists. The websites of the political parties including their activities on Youtube, Facebook and MySpace have been visited by 10% of the panelists, candidates’ blogs by 3.9%, while different independent debate- and discussion sites were only visited by 0.6% (see Table 1).

Taking an overall look at the political use of the Internet during the 2007 elections it is striking that the more established and “traditional” web 1.0 facilities are (still) the most used, while the new web 2.0 facilities have had relatively few users. Thus, it is only 2.4% of the panel, who have visited political Facebook-profiles, only 1.1% who have seen political YouTube videos, and only 2.6% who have visited parties, candidates or seen political satire or entertainment on MySpace. Despite much hype about these sites during the election period, fuelled among other things by Prime Minister Anders Fogh Rasmussen declaring the “I have more than 2,000 friends on Facebook”, this part of the Internet did not strike a chord with a broader public during the election.

Table 1: The political Internet use of panel participants during the 2007 Danish parliamentary elections. Percentages².

	Party websites etc. ^a	Candidates websites etc. ^a	Candidates blogs	Mainstream media websites	Election tests or quizzes	Debate- and discussion sites ^b
All	10	8	4	16	17	1
<i>Gender</i>						
women	10	8	4	15	18	1
men	10	8	4	18	15	1
<i>Age</i>						
18-29	14	10	4	20	24	1
30-49	11	7	4	14	15	1
50+	8	7	4	16	13	1
<i>Education</i>						
<13 years	9	7	3	15	16	1
>13 years	12	9	5	18	19	1
<i>Income^c</i>						
<200	13	10	5	18	20	1
200-399	9	7	3	15	16	0
>400	10	8	4	18	15	1

^a For parties and candidates the numbers also include their presence on YouTube, Facebook, MySpace as well as their own eventual “television-channel” on the Internet. For candidates the figures also include visits on candidates’ blogs. However, the figures for visits on blogs are also shown in an independent column.

^b Debate- and discussion sites maintained by non-candidates

^c Yearly income in Danish Kroner (x 1000)

² The statistical significance of the distributions in this table, as well as for the tables in the following is: $p < 0.05$ or better unless something else is explicitly stated.

These figures could give the impression that only a modest part of the (Internet-) population used the Internet for political information or other political activities during the 2007 election campaign. However, this will be a wrong interpretation of the figures, as activity is spread over a large variety of sites. Thus, altogether around 32% of the Internet-population has been politically active on the Internet during the election month³.

Looking at how use is distributed among the sexes, age groups, educational groups and income groups, we very much find the expected results. Thus, differences among the sexes are non-existing or very small; a situation similar to what has been the case for general Internet use in Denmark at least since 2003/2004 (Hoff & Andersen 2006). Concerning age groups the youngest age group (18-29) is considerably more politically active on the Internet than any of the other age groups, a finding that is consistent across almost all types of political use. This is known to be the case for general Internet use, but that this is also the case for political use is a finding of great importance for not least parties and candidates concerned about getting out the young vote.

Looking at differences among educational groups we see that the better educated are more prone to use the Internet politically during election campaign periods than the less educated, which is no big surprise. The difference between income groups mirror the other differences, as it is the lowest and the highest income groups, which are the most, frequent political users. The lower income group has an overrepresentation of younger persons, of whom some will be well educated, while the highest income group has an overrepresentation of the well educated. Thus, we get the curve-linear relationship observed in Table 1.

If we focus instead on what the survey respondents (the 19.3% of the panel who answered the questionnaire) say they use the Internet for, we see that their use of most sites exceeds the average for the panel. This indicates that those who choose to answer the questionnaire are persons who are quite politically active on the Internet. Actually the data shows that among survey respondents 82% have been politically active on the Internet during the election period which is around 2.5 times as many as among the panelists.

Table 2: Survey respondents' political use of the Internet during the 2007 Danish parliamentary elections (I). Percentages.

Sought information about pol. parties	Sought information about candidates	Done election tests or quizzes	Seen video with politicians on the net	Sought information about offline campaign-activities	Looked at opinion polls	Read politicians' blogs
44.3	35.2	49.2	16.5	4.1	47.3	14.3
N=434	345	483	162	40	464	141

As can be seen from Table 2 around 44% of the survey respondents have sought information about the political parties and their platforms on the net. This compares with 10% of the panelists who did the same (assuming that this search takes place first of all on the websites of the parties). Around 47% followed the opinion polls on the net; probably first of all on the media websites or on the special web media (Altinget.dk. or others). However, for the survey respondents the most frequently visited websites are the election tests or -quizzes. In general what we see is an activity pattern, which is very similar to that of the panel; just at a higher level.

³ This figure can be compared to the 46% of the US Internet population who have been politically active on the Internet during the 2008 presidential election (see Pew Internet and American Life Project, June 2008).

Table 3: Survey respondents' political use of the Internet during the 2007 Danish parliamentary elections (II). Percentages.

Participated in elections on the net	Commented on politician's blogs	Participated in debate(s) with other voters on the net	Participated in the campaign on MySpace, Facebook or YouTube	Participated in the election campaign with (other) online content	Received election news from party or candidate via sms or RSS-feed
43.6	5.6	3.6	5.4	1.5	4.6
N=427	55	36	53	15	45

Table 3 shows the somewhat more specialized use of the Internet during the election period. We see that also trial elections are quite popular, as almost 44% of survey respondents have participated in such activity. Concerning the other activities listed they seem to appeal to a relatively modest number of participants. However, for survey respondents this is still at a level, which is higher than for the panelists as such. Thus, almost 6% of the survey respondents have posted a comment on a politician's blog (compared to 3.9% for the panel) and around 4% have participated in debates with other voters (panel: 0.6%). Only concerning the web 2.0 facilities do we see that the panel participates more than the survey respondents. This is probably caused by the fact that the panel is in general younger than the survey respondents; a fact that a weighing of the data has not been able to eliminate.

If we continue this overview by looking at how survey respondents say they are affected by their political Internet use when it comes to party choice, attitude towards candidates, or attitude towards important issues, it is only 7% who say that they "completely agree" or "agree" with a statement saying that "my use of the Internet during the election period has changed my party choice", whereas 80% disagree (see figure 2). Thus, the potential of the Internet to directly change voter party preferences seems quite limited.

Asking whether Internet use has changed the respondent's political attitudes on important issues, or just influenced the political attitudes of the respondent, we also see that a great majority; 76% and 58% respectively, say that they "disagree" or "completely disagree" with such statement. In contrast 7% and 20% say that they "agree" or "completely agree".

However, if one asks whether use of the Internet has changed the respondent's view on one or more candidates, the situation is somewhat different. Thus, 33% agree to such statement, while 45% disagree. Finally, asking the respondent to make an overall judgment as to whether Internet use has affected his/her party choice, political attitudes or attitude towards candidates, 30% agree to such statement, while 50% disagree.

Summing up on the tendency in the five questions listed in figure 2 it seems to be that while the Internet does not have much of an impact on the "core values" of the respondents (their party choice or issues considered important), the Internet seems to be more successful in affecting respondents' attitudes towards candidates and less important issues (the more "peripheral values").

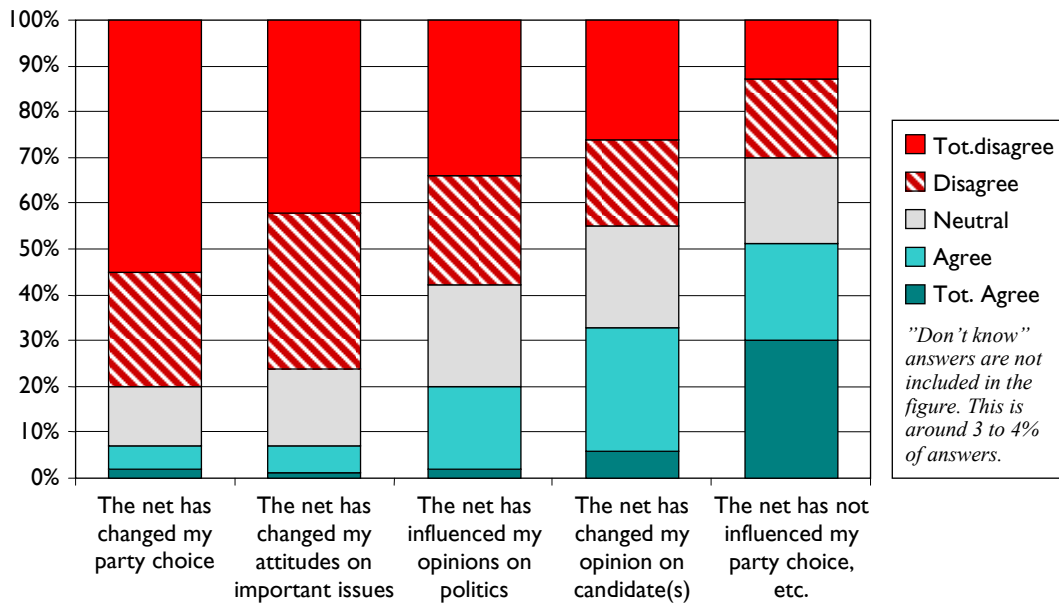


Figure 2: Internet influence on party choice and political attitudes during the election period. Percentages.

4 Are persons who use the Internet politically more affected by their use than other Internet users?

In this paragraph the first hypothesis put forward above will be tested. The hypothesis stated that:

H1: *The degree of political influence will depend on how much one uses the Internet politically. Those who expose themselves intensively to different kinds of political information on the Internet will be more affected than those who do so less intensively.*

Departing from the 13 different types of political Internet use reported in Table 2 and Table 3 a simple additive index has been constructed⁴. This index is used to measure the intensity of political use, as earlier studies (Hoff 2006) have demonstrated, that versatility in use is a better measure of exposure than simply time spent, as some uses can be very monotonous. In Table 4 this index has been recoded into 4 categories making it possible to distinguish between non-politically active Internet users (= 0 activities), users who are politically active below average (=1), those who are active around the average (2-3), and those who are clearly politically active above the average (4 and more).

⁴ The index ranges from 0 to 13. The mean value is 2.73.

If we run a cross-tabulation using this measure of political activity on the Internet as one dimension, and the different questions used in figure 2 as the other dimension, we find that concerning most of the questions it is true that the more politically active the net users are, the more they are affected politically (see Table 4). The same is true if we look at a question concerning to what extent the websites of political parties have been helpful in clarifying the respondent's final voting decision (Hoff 2008).

Table 4: *The influence of Internet use on party choice, political attitudes and attitude toward candidates for politically active and non-politically active net users. PD**.

Political activity index:	Use of the Internet has changed my party choice	Use of the Internet has changed my attitudes on important issues	Use of the Internet has influenced my opinions on politics	Use of the Internet has changed my opinion on one or more candidates	Use of the Internet has not influenced my party choice, opinions about candidates, etc.
Not politically active (N=169)	-69	-68	-68	-59	+41
Activity below average (N=322)	-75	-68	-47	-30	+38
Activity around average (N=302)	-75	-69	-25	+7	+5
Activity above average (N=188)	-60	-57	-12	+36	-4
N=	981	981	981	981	981

* PD = Percentage Difference. The difference in percentage points between those who answer, "agree" and "totally agree" versus those who answer, "disagree" and "totally disagree".

What we see from Table 4 is that concerning the two first questions from the left in the table differences between groups are not very big, confirming our observation that concerning "core political values" Internet users across the board are not very politically affected by their use. However, looking at the last three questions in the table it is clearly the case that the more politically active the user is on the net the more politically affected he/she is. *Our conclusion must therefore be that hypothesis 1 is confirmed with some reservation: there is a clear and monotonous relationship between the degree of political use of the Internet and the degree to which users are affected politically by the use, except when it comes to "core political values", which are apparently hard to affect.*

5 Do the effects of political Internet use depend on what sites one chooses to visit?

In this paragraph the second hypothesis put forward above will be tested. The hypothesis stated that:

H2: *The degree to which one is politically affected depends on what kind of political websites one uses.*

In investigating this hypothesis I will depart from a distinction between “net activists” and “information seekers”. I have come upon this distinction by investigating whether there are certain patterns in the 13 different types of political Internet use shown in Table 2 and 3 above. Thus, an exploratory factor analysis (see Table 5) of these forms of political Internet use shows that there are two very clear dimensions in political Internet use, which points towards two types of users: 1) the dialogically and socially oriented “net activists”, who for example comment on politicians’ blogs, participates in debates on the net, participates in the election campaign on the web 2.0 sites, contributes with content or get real-time political information from campaign websites, and 2) the more information oriented, politically interested, but passive net users – the “information seekers”, who to a very large extent “only” use the Internet to get politically informed, and whose interactive endeavors do not exceed more than eventually taking an election test or participating in a trial voting.

Table 5: The two dimensions in political use of the Internet: net activism versus information seeking. Factor analysis.

	Net activism (factor 1)	Information seeking (factor 2)
1 Sought information about pol. parties		0.605
2 Sought information about candidates	0.225	0.541
3 Done election tests or quizzes		0.651
4 Seen video with politicians on the net	0.341	0.395
5 Sought information about offline campaign activities	0.624	
6 Looked at opinion polls		0.624
7 Read politicians blogs	0.366	0.395
8 Participated in elections on the net		0.586
9 Commented on politician’s blog	0.498	0.188
10 Participated in debates on the net	0.600	
11 Participated in the campaign on MySpace, Facebook or YouTube	0.460	0.165
12 Participated with (other) online content	0.714	
13 Received election news via sms or RSS-feed	0.441	0.162
Explained variance =	22.0%	12.2%

Only factors with Eigenvalue >1 are shown. Varimax rotation.

Our data shows that if we define net activists as persons who have participated in one or more web 2.0 activities, and information seekers as persons who have not done so at all, but stuck to the “traditional” political activities, 65% of the survey respondents are information seekers while 17% are net activists (the remaining 18% are not politically active at all on the Internet). There are in other words around 4 times as many information seekers as net activists.

The political effect of specific political sites has also been investigated by looking at whether those who have taken election tests or election quizzes say that they are more politically affected by their Internet use than other groups. The reason why it has been chosen to focus especially on this group is firstly that it can be assumed that persons who take an election test might be persons who want to clarify what party they should vote for. Thus, it might be persons who are more politically volatile than others. Secondly, the election tests were the single most popular political facility on the Internet during the election period. It is therefore of interest to investigate the political potential of this facility.

If we look first on whether there are differences between the group of net activists and the group of information seekers when it comes to the questions of whether "use of the net has changed my party choice", "use of the net has changed my attitudes on important issues", opinion on candidates, etc. (cf. Table 4), we see that net activists are more affected politically than information seekers in all areas (see Table 6). Differences are quite big and statistically significant. Thus, everything seems to indicate that those who use the Internet interactively and dialogically in a political context (web 2.0 users) are also those who feel that they are more politically affected by their Internet use than those who mainly use the Internet to more passively seek for political information.

Table 6: *The influence of Internet use on party choice, political attitudes and attitude towards candidates for net activists and information seekers respectively. PD*.*

	Use of the Internet has changed my party choice	Use of the Internet has changed my attitudes on important issues	Use of the Internet has influenced my opinions on politics	Use of the Internet has changed my opinion on one or more candidates	Use of the Internet has not influenced my party choice, opinions about candidates, etc.
Net activists	-63	-57	-19	+12	+8
Information seekers	-73	-69	-41	-15	+23
N= 980					

* PD = Percentage Difference. The difference in percentage points between those who answer, "agree" and "totally agree" versus those who answer, "disagree" and "totally disagree".

Looking at whether persons who have taken election tests or -quizzes are more politically affected by their use of the Internet than others, using the same questions as in Table 6 as the dependent variables, we find a somewhat similar pattern to that found in Table 6. Thus, concerning the last three questions those who have taken election tests or quizzes are clearly more politically affected than those who have not. However, concerning the two first questions there is either no statistically significant difference between the two groups, or the relationship is the opposite of the expected (table not shown here).

Concluding on our hypothesis we can say that it is confirmed with some reservation. Thus, whereas we found clear differences between web 2.0 users (net activists) and others concerning how they were politically affected by their political Internet use, web 2.0 users being clearly more politically affected, the same was only true to some extent concerning users of political tests and quizzes, even though there might be reasons to believe that this group is more politically volatile than others.

6 Does political interest matter for the effects of political Internet use?

In this paragraph the third hypothesis put forward above will be tested. Thus, following Zaller we proposed that:

H3: *Those who are somewhat or little interested in politics will be more affected politically than those who are highly interested.*

Looking at the relationship between political interest and how respondents are politically affected by their Internet use (same questions as in Table 4 and Table 6), we find a relationship, which very much seems to confirm the hypothesis (see Table 7).

Table 7: Relationship between political interest and the political effect of Internet use. PD*.

Political interest:	Use of the Internet has changed my party choice	Use of the Internet has changed my attitudes on important issues	Use of the Internet has influenced my opinions on politics	Use of the Internet has changed my opinion on one or more candidates	Use of the Internet has not influenced my party choice, opinions about candidates, etc.
Very interested (N=229)	-87	-76	-50	-12	+28
Somewhat interested (N=445)	-71	-67	-30	-8	+16
Little interested (N=261)	-58	-56	-35	-10	+13
Not interested at all (N=45)	-67	-64	-47	-36	+67
N=	980	980	980	980	980

* PD = Percentage Difference. The difference in percentage points between those who answer, "agree" and "totally agree" versus those who answer, "disagree" and "totally disagree".

What we find is – very much according to Zaller’s assumptions – a curvilinear relationship, where persons who are "somewhat" or "little" interested in politics are the ones who are most politically affected by their Internet use in the campaign period, while those who are "very interested" or "not interested at all" are the least affected. Zaller’s explanation for why the very politically interested are not affected as much as other groups is that the very politically interested have rather stable political attitudes and a rather clear party preference, which is not likely to be changed much during an election campaign. However, Zaller suggests that even politically non-interested persons will be exposed to some political messages during the election campaign. As these persons do not have a lot of political knowledge and therefore not very stable political preferences, these persons will be as affected by campaign messages as those who are somewhat or little interested in politics. However, this is not the pattern we find here. What we see is that those who are not interested in politics at all, are not very affected politically by their Internet use. This probably means that this group is able to rather effectively shield itself from campaign messages and other political information on the net; a strategy which is probably more difficult when it comes to the traditional mass media.

Notwithstanding this small deviation from Zaller’s original assumption we will conclude that hypothesis 3 is confirmed. The status of the political interest variable will be further discussed below.

7 Discussion

Above we have tested three different hypotheses concerning the relationship between political use of the Internet, and the political effects of this use at the individual level. However, it is obvious that there might be a string of other factors, which could be of importance for whether users are politically affected by their Internet use or not. Factors, which could be of importance, include socio-demographic factors like gender, age, education and income, as well as political factors such as for example political orientation/party choice and political activity. These factors can have a direct as well as an indirect effect on the various dimensions of political attitudes dealt with above; i.e. functioning as independent as well as intermediary variables.

There are different ways to check the importance of such factors. One method is to run a series of three-way cross tabulations investigating whether these factors have an importance as intermediary variables; eventually eliminating or strengthening the relations found for certain groups. Another method is to perform a series of multiple regression analysis, where the importance of such new variables are tested in relation to the variables that we already found were of importance for how much the users were affected politically by their Internet use. The multiple regression analysis can also be done in different ways; either by entering all the variables in a multiple regression at the same time, or by entering the socio-demographic and new political variables one by one together with the variables we already found were of importance (stepwise regression).

Performing all these different types of tests does not yield substantially different results. Thus, what we see very consistently is that the socio-demographic factors as well as the additional political variables play a minimal role in explaining the variation in the different political effects of Internet use. A representative example of the analyses is found in Table 8 (next page).

What we see from Table 8 is firstly that the total regression model does not have a very high explanatory power in terms of explaining the variation in the political effects of Internet use. Thus, the regression model explains between 15.7% and 3.1% of the variation in the different forms of political effect (R^2 between 0.157 and 0.031), which means that there are probably a number of factors not dealt with here, which are also of importance in explaining the variation. Secondly, we see that neither gender, age, education, nor income has much explanatory power when it comes to being politically affected. Thus, the beta-coefficients are either non-significant or very small.

The result which remains is therefore that the four factors that we found to be of importance for how users are affected politically by their political Internet use, the degree to which one is a politically active net user, being a net activist, taking election tests/quizzes, and political interest are the factors of most importance for how users are affected. Party choice also has some explanatory power, a finding that calls for additional analysis of this variable.

What needs to be spelled out, however, is the more detailed relationship between these four factors. Thus, one may speculate about the extent to which these factors more or less measure the same, which in statistical terms boils down to a question of multicollinearity, and one might more specifically speculate about the relationship between political interest, which is a factor with a consistently high explanatory power in terms of how affected voters are by their political Internet use, and the other three factors.

Table 8: Regression analysis with nine independent variables¹ and various political effects of Internet use as dependent variables. Unstandardised beta coefficients. Significant relationships marked with an*.

Independent variables:	Party websites have helped me clarify my voting decision	Use of the Internet has changed my party choice	Use of the Internet has changed my attitudes on important issues	Use of the Internet has influenced my opinions on politics	Use of the Internet has changed my opinion on one or more candidates
1 Gender	-0.031*	-0.010	0.000	-0.005	0.001
2 Age	0.001*	0.001*	0.005	0.001*	0.001*
3 Education	0.000	0.017*	0.014*	0.002	0.012
4 Income	0.001	0.005	-0.003	-0.007	-0.007
5 Party choice	0.071*	-0.035*	-0.096*	0.010	0.008
6 Political interest ²	0.238*	0.198*	0.145*	0.249*	0.179*
7 Taken election test	-0.045	0.002	-0.157*	0.006	-0.188*
8 Political net activity	-0.090*	-0.024*	-0.079*	-0.202*	-0.416*
9 Net activist	0.029	0.117*	0.097*	0.028	-0.142*
R ² =	0.039	0.031	0.038	0.081	0.157

¹ Gender, education, net activist/ information seeker, taken election test /not taken election test as well as political interest are all dummy variables (coded: 0,1). Concerning political interest see following note.

² Due to the curve-linear relationship between political interest and the different variables used to measure political effect, the effect of political interest has been measured using three different dummy-variables (very interested versus other answer categories, very and not interested versus some/little, and not interested versus other categories). Using all three variables give mixed results depending on which dependent variable one looks at. In Table 8 only the results for the dummy-variable coded very/not interested versus some/little interested is shown.

Concerning the question of multicollinearity this has been tested and tolerance levels are well above 0.20 (VIF-values lower than 2.0) meaning that this is not a problem in the regression analyses. Nonetheless, we find significant correlations (Pearson's r) between firstly net activism, taking an election test and political net activity (-.448 and -.593). Secondly, there is a significant correlation between political interest (high/low) and political net activity. Concerning the first correlations this is no big surprise, as the measures of net activism and taking an election test are part of the index of political net activism. To some extent these measures therefore measure the same. For this reason a reduced regression model has been run with only 5 variables (age, education, party choice, political net activity and political interest). Such model does not yield results substantially different from the model shown above, meaning that political net activity and political interest remain as the variables with most explanatory power.

Looking then at the relationship between these two variables there is a correlation of -.345 (Pearson's r) between the two, meaning that the more politically interested a person is, the higher the person's political activity on the Internet is. Testing also whether political interest (some/little versus high/none) acts as an intermediary variable significantly modifying the relationship between political Internet use and political influence from this use (as suggested in figure 1 above) shows

that such an effect is not very visible⁵. This means that political interest should not be seen as an intermediary variable, but rather as a background variable. Thus, in explaining the relationship between political interest and political net activity we suggest a causal chain that runs like this: political interest is an important determinant for political activity on the Internet, as net users with a high political interest are also likely to have a high political net activity. Political net users are affected politically by their use; however certain types of uses have a more profound political effect on users than others. Furthermore, users who are somewhat or little interested in politics are more affected than others.

These results are an almost complete confirmation of Zaller's ideas on how political communication affects persons/voters, and goes to show that in terms of political communication the Internet works very much like other media: they affect the persons who use them – and the more diversified the political use, the more affected the user is.

8 Conclusion

This article raises the question of whether the Internet can really swing the vote? Recognizing that a straightforward answer to this question is not possible, the article sets out to answer the less ambitious question of whether the political use of the Internet affects users politically.

Using a combination of log- and survey data from a study of Internet use during the 2007 Danish parliamentary election, and inspired by theories on agenda setting and on the active/interactive user, three hypotheses are tested: 1) that those who use the Internet most intensively politically are also the most politically affected, 2) that the degree to which a person is politically affected depends on what kind of political websites the person uses, 3) that those who are somewhat or little interested in politics are those most affected by their political Internet use in an election period.

In general the data shows that political Internet use affect users politically. However, users are only modestly influenced when it comes to "core values" like party choice or what they consider as important political issues, while they are more affected when it comes to such issues as political opinions in general and opinions on different candidates. Altogether 30% of the survey respondents agree that they are influenced politically by their Internet use to some degree.

Testing the hypotheses shows that hypothesis 1) is verified with some reservation. Thus, there is a clear positive correlation between the degree of political use of the Internet and the degree to which users are politically affected by their use, except when it comes to the "core values" mentioned above. Concerning hypotheses 2) a distinction between "net activists" and "information seekers" was constructed on the basis of an exploratory factor analysis. The "net activists" are the dialogically and socially oriented web 2.0 enthusiasts, who for example comment on politicians' blogs, participate in debates on the net, uploads or distributes political content, etc., while the "information seekers" are the more information oriented and passive net users. This distinction, together with the distinction between those who have taken an election test or election quiz, and those who have not, was used to analyze whether a political effect of using specific websites could be seen.

⁵ In the three-way cross-tabulations run to test this relationship, the relationship between the different types of political Internet use and the different political effects was found to stick in 60% of the cases (9 out of 16), the political interest variable only interfering in 40% of the cases.

In the case of "net activists" versus "information seekers" the result of the analysis was very clear: net activists were more politically affected by their use than "information seekers" across all items analyzed. For those who had taken an election test versus those who had not, the situation was a bit less clear. Thus, only on 3 out of 5 items did we find that those who had taken an election test were more politically affected than those who had not. Hypothesis 2) could therefore also only be verified with some reservation.

Testing hypothesis 3) demonstrated that it is indeed the case that those who are somewhat or little interested in politics are more affected by their political Internet use, than those who are very interested. However, contrary to Zaller's (1992) expectations, it was also shown that those who are not interested in politics at all are not very affected by their Internet use in an election period. This deviation from our hypothesis was explained by assuming that the group of not-politically-interested Internet users are probably able to rather effectively shield themselves from campaign messages and other political information on the net; a strategy which is probably more difficult when it comes to traditional mass media⁶.

The article ends by considering a range of other factors, which could also be of importance for whether users are politically affected by their Internet use or not. Such factors could most notably be socio-demographic factors like gender, age, education and income or (other) political factors such as party choice or political activity. The importance of these factors is checked through a series of three-way cross tabulations and multiple regression analyses. However, performing these different types of analyses consistently shows that socio-demographic variables as well as the political variables mentioned play a minimal role in explaining variation in the different political effects of Internet use. Instead, what rather consistently stands out as the most important variables in explaining the degree to which users are politically affected, is the level of political net activity as well as political interest. Investigating the relationship between these two variables closer shows that political interest is a background variable more than an intermediary variable modifying the relationship between political Internet use and its political effect on users. Thus, a more plausible causal chain is that political interest should be seen as an important determinant for political activity on the Internet, as users with a high political interest are also likely to have a high and diversified political net activity. Political net users are then affected politically by their use, much like users of other media, and certain types of uses can be demonstrated to have a more profound political effect than others.

⁶ With the strong increase in Internet ads during election campaigns such strategy might not be viable in the long run as the difference between the Internet and "traditional media" is disappearing (also) on this point.

9 References

- Bimber, Bruce & Davies, Richard (2003): *Campaigning Online. The Internet in U.S. Elections*. New York: Oxford University Press.
- Brink Lund, Anker (2002): *Den redigerende magt. Nyhedsinstitutionens politiske indflydelse*. Århus: Århus Universitetsforlag.
- Cover, Rob (2006): "Audience Inter/active: Interactive media, narrative control and reconceiving the audience". *New Media and Society*, Vol. 8, no.1, pp. 139-158.
- Dearing, James W. & Rogers, Everett M. (1996): *Agenda – Setting*. London: Sage Publications. Inc.
- Danmarks Statistik (2007): *Statistiske Efterretninger 2007:42*. Copenhagen.
- Finnemann, Niels Ole (2005): *Internettet i mediehistorisk perspektiv*. København: Samfundslitteratur.
- Foot, Kirsten A. & Schneider, Steven M. (2006): *Web Campaigning*. Cambridge, Massachusetts: The MIT Press.
- Graff, Garret M. (2006): *The First Campaign: Globalization, the Web and the Race for the White House*.
- Hall, Stuart (1980): "Encoding/decoding", in: Stuart Hall, Dorothy Hobson, Andrew Lowe & Paul Willis (eds.). *Culture, Media, Language*. London: Routledge, pp. 128-138.
- Hansen, Kasper Møller, Pedersen, Karina & Wahl-Brink, Dorit (2006): "Folketingsvalget 2005 i cyberspace", *Politik*, Vol. 9, no. 1, pp. 86-99.
- Hansen, Kasper Møller m.fl. (2007): "Man har et parti indtil man finder et nyt: Portræt af vælgeren som skiftende part" i Jørgen Goul Andersen m.fl. (red.). *Det nye politiske landskab: Folketingsvalget 2005 i perspektiv*. Århus: Academica, pp. 257-271.
- Hoff, Jens & Bjerke, Flemming (2004): "Politik, magt og demokrati i informationsfundet. En teoretisk ramme" i Jens Hoff (red.): *Danmark som informationsfund*. Aarhus Universitetsforlag: Aarhus., pp. 22-70.
- Hoff, Jens (2006): "Virtual Capital? Internet Competence and Political Participation in Denmark". *Politik*, Vol.9, no.2, pp. 83-93.
- Hoff, Jens & Andersen, Rasmus Kruse (2006): *Mediebrug og politisk deltagelse i Danmark. Landsundersøgelsen 2003/2004. Working Paper, no. 20. Center for Media and Democracy in the Network Society*.
- Hoff, Jens (2008): "Kan internettet flytte stemmer?" i Jakob Linaa Jensen, Lisbeth Klastrup og Jens Hoff (2008). *Internettets rolle under folketingsvalget 2007*. København: Foreningen af Danske Interaktive Medier, pp. 16-27.
- Howard, Philip N. (2005): *New Media Campaigns and the Managed Citizen*. New York: Cambridge University Press.
- Hutchby, Ian (2001): *Conversation and Technology. From the Telephone to the Internet*. Cambridge, UK: Polity Press.
- Johnson, Thomas J. & Kaye, Barbara K. (2003): "A Boost or a Bust for Democracy?: How the Web Influenced Political Attitudes and Behaviors in the 1996 and 2000 Presidential Elections". *The Harvard International Journal of Press/Politics*, Vol. 8, no. 3, pp. 9-34.

- Klastrup, Lisbeth (2008): "Brugen af "sociale medier" online i valgkampen 2007", in: Jakob Linaa Jensen, Lisbeth Klastrup og Jens Hoff (2008). *Internettets rolle under folketingsvalget 2007*. København: Foreningen af Danske Interaktive Medier, pp. 37-46.
- Lee, Yeon-Ok & Park, Han Woo (2008): "Understanding Elections by the Use of a Mixed Webometric Method: A Case Study of South Korea's 2007 Presidential Election". Paper presented at the Internet Research Conference 9.0, 15-18 October 2008, IT University, Copenhagen, Denmark.
- Linaa Jensen, Jakob, Klastrup, Lisbeth & Hoff, Jens (2008): *Internettets rolle under folketingsvalget 2007*. Copenhagen: Foreningen af Danske Interaktive Medier.
- Mandag Morgen (2008): "Web 2.0 afgør amerikansk valgkamp". Mandag Morgen 13.oktober 2008.
- Mccombs, Maxwell (2004): *Setting the agenda. The mass media and public opinion*. Polity: Cambridge, UK.
- Norris, Pippa (2003): "Preaching to the Converted? Pluralism, Participation and Party Websites", *Party Politics, Vol. 9, no.1*, pp. 21-45.
- Pew Internet and American Life Project (2008): *The Internet and the 2008 Election*. http://www.pewinternet.org/PPF/r/252/report_display.asp.
- Pew Research Centre (2000): *Youth Vote Influenced by Online Information: Internet Election News Audience Seeks Convenience, Familiar Names*. <http://www.people-press.org>.
- Rasmussen, Finn (2007): *Massemedier og politisk kommunikation*. København: Columbus.
- Weise, Elisabeth (2000): "Not Yet for the Net". *Media Studies Journal*, 14, pp. 36-41.
- Zaller, John R. (1992): *The Nature and Origins of Mass Opinion*. Cambridge: Cambridge University Press.
- Zaller, John R. (1996): "The Myth of Massive Media Impact revived: New Support for a Discredited Idea", in: Diana C. Mutz, Paul M. Sniderman & Richard A. Brody (eds.). *Political Persuasion and Attitude Change*. Ann Arbor: The University of Michigan Press.

Previously published manuscripts

- ITA-01-01 Gunther Tichy, Walter Peissl (12/2001): Beeinträchtigung der Privatsphäre in der Informationsgesellschaft. <www.oeaw.ac.at/ita/pdf/ita_01_01.pdf>
- ITA-01-02 Georg Aichholzer(12/2001): Delphi Austria: An Example of Tailoring Foresight to the Needs of a Small Country. <www.oeaw.ac.at/ita/pdf/ita_01_02.pdf>
- ITA-01-03 Helge Torgersen, Jürgen Hampel (12/2001): The Gate-Resonance Model: The Interface of Policy, Media and the Public in Technology Conflicts. <www.oeaw.ac.at/ita/pdf/ita_01_03.pdf>
- ITA-02-01 Georg Aichholzer (01/2002): Das ExpertInnen-Delphi: Methodische Grundlagen und Anwendungsfeld „Technology Foresight“. <www.oeaw.ac.at/ita/pdf/ita_02_01.pdf>
- ITA-02-02 Walter Peissl (01/2002): Surveillance and Security – A Dodgy Relationship. <www.oeaw.ac.at/ita/pdf/ita_02_02.pdf>
- ITA-02-03 Gunther Tichy (02/2002): Informationsgesellschaft und flexiblere Arbeitsmärkte. <www.oeaw.ac.at/ita/pdf/ita_02_03.pdf>
- ITA-02-04 Andreas Diekmann (06/2002): Diagnose von Fehlerquellen und methodische Qualität in der sozialwissenschaftlichen Forschung. <www.oeaw.ac.at/ita/pdf/ita_02_04.pdf>
- ITA-02-05 Gunther Tichy (10/2002): Over-optimism Among Experts in Assessment and Foresight. <www.oeaw.ac.at/ita/pdf/ita_02_05.pdf>
- ITA-02-06 Hilmar Westholm (12/2002): Mit eDemocracy zu deliberativer Politik? Zur Praxis und Anschlussfähigkeit eines neuen Mediums. <www.oeaw.ac.at/ita/pdf/ita_02_06.pdf>
- ITA-03-01 Jörg Flecker und Sabine Kirschenhofer (01/2003): IT verleiht Flügel? Aktuelle Tendenzen der räumlichen Verlagerung von Arbeit. <www.oeaw.ac.at/ita/pdf/ita_03_01.pdf>
- ITA-03-02 Gunther Tichy (11/2003): Die Risikogesellschaft – Ein vernachlässigtes Konzept in der europäischen Stagnationsdiskussion. <www.oeaw.ac.at/ita/pdf/ita_03_02.pdf>
- ITA-03-03 Michael Nentwich (11/2003): Neue Kommunikationstechnologien und Wissenschaft – Veränderungspotentiale und Handlungsoptionen auf dem Weg zur Cyber-Wissenschaft. <www.oeaw.ac.at/ita/pdf/ita_03_03.pdf>
- ITA-04-01 Gerd Schienstock (1/2004): Finnland auf dem Weg zur Wissensökonomie – Von Pfadabhängigkeit zu Pfadentwicklung. <www.oeaw.ac.at/ita/pdf/ita_04_01.pdf>
- ITA-04-02 Gunther Tichy (6/2004): Technikfolgen-Abschätzung: Entscheidungshilfe in einer komplexen Welt. <www.oeaw.ac.at/ita/pdf/ita_04_02.pdf>
- ITA-04-03 Johannes M. Bauer (11/2004): Governing the Networks of the Information Society – Prospects and limits of policy in a complex technical system. <www.oeaw.ac.at/ita/pdf/ita_04_03.pdf>
- ITA-04-04 Ronald Leenes (12/2004): Local e-Government in the Netherlands: From Ambitious Policy Goals to Harsh Reality. <www.oeaw.ac.at/ita/pdf/ita_04_04.pdf>
- ITA-05-01 Andreas Krisch (01/2005): Die Veröffentlichung des Privaten – Mit intelligenten Etiketten vom grundsätzlichen Schutz der Privatsphäre zum Selbstschutz-Prinzip. <www.oeaw.ac.at/ita/pdf/ita_05_01.pdf>
- ITA-05-02 Petra Grabner (12/2005): Ein Subsidiaritätstest – Die Errichtung gentechnikfreier Regionen in Österreich zwischen Anspruch und Wirklichkeit. <www.oeaw.ac.at/ita/pdf/ita_05_02.pdf>
- ITA-05-03 Eva Buchinger (12/2005): Innovationspolitik aus systemtheoretischer Sicht – Ein zyklisches Modell der politischen Steuerung technologischer Innovation. <www.oeaw.ac.at/ita/pdf/ita_05_03.pdf>
- ITA-06-01 Michael Latzer (06/2006): Medien- und Telekommunikationspolitik: Unordnung durch Konvergenz – Ordnung durch Mediamatikpolitik. <epub.oeaw.ac.at/ita/ita-manuscript/ita_06_01.pdf>
- ITA-06-02 Natascha Just, Michael Latzer, Florian Saurwein (09/2006): Communications Governance: Entscheidungshilfe für die Wahl des Regulierungsarrangements am Beispiel Spam. <epub.oeaw.ac.at/ita/ita-manuscript/ita_06_02.pdf>
- ITA-06-03 Veronika Gaube, Helmut Haberl (10/2006): Sozial-ökologische Konzepte, Modelle und Indikatoren nachhaltiger Entwicklung: Trends im Ressourcenverbrauch in Österreich. <epub.oeaw.ac.at/ita/ita-manuscript/ita_06_03.pdf>
- ITA-06-04 Maximilian Fochler, Annina Müller (11/2006): Vom Defizit zum Dialog? Zum Verhältnis von Wissenschaft und Öffentlichkeit in der europäischen und österreichischen Forschungspolitik. <epub.oeaw.ac.at/ita/ita-manuscript/ita_06_04.pdf>
- ITA-06-05 Holger Floeting (11/2006): Sicherheitstechnologien und neue urbane Sicherheitsregimes. <epub.oeaw.ac.at/ita/ita-manuscript/ita_06_05.pdf>
- ITA-06-06 Armin Spök (12/2006): From Farming to „Pharming“ – Risks and Policy Challenges of Third Generation GM Crops. <epub.oeaw.ac.at/ita/ita-manuscript/ita_06_06.pdf>
- ITA-07-01 Volker Stelzer, Christine Rösch, Konrad Raab (3/2007): Ein integratives Konzept zur Messung von Nachhaltigkeit – das Beispiel Energiegewinnung aus Grünland. <epub.oeaw.ac.at/ita/ita-manuscript/ita_07_01.pdf>

- ITA-07-02 Elisabeth Katzlinger (3/2007): Big Brother beim Lernen: Privatsphäre und Datenschutz in Lernplattformen. <epub.oeaw.ac.at/ita/ita-manuscript/ita_07_02.pdf>
- ITA-07-03 Astrid Engel, Martina Erlemann (4/2007): Kartierte Risikokonflikte als Instrument reflexiver Wissenspolitik. <epub.oeaw.ac.at/ita/ita-manuscript/ita_07_03.pdf>
- ITA-07-04 Peter Parycek (5/2007): Gläserne Bürger – transparenter Staat? Risiken und Reformpotenziale des öffentlichen Sektors in der Wissensgesellschaft. <epub.oeaw.ac.at/ita/ita-manuscript/ita_07_04.pdf>
- ITA-07-05 Helge Torgersen (7/2007): Sicherheitsansprüche an neue Technologien – das Beispiel Nanotechnologie. <epub.oeaw.ac.at/ita/ita-manuscript/ita_07_05.pdf>
- ITA-07-06 Karen Kastenhofer (9/2007): Zwischen „schwacher“ und „starker“ Interdisziplinarität. Die Notwendigkeit der Balance epistemischer Kulturen in der Sicherheitsforschung zu neuen Technologien. <epub.oeaw.ac.at/ita/ita-manuscript/ita_07_06.pdf>
- ITA-07-07 Ralf Lindner, Michael Friedewald (9/2007): Gesellschaftliche Herausforderungen durch „intelligente Umgebungen. Dunkle Szenarien als TA-Werkzeug. <epub.oeaw.ac.at/ita/ita-manuscript/ita_07_07.pdf>
- ITA-07-08 Alfons Bora (11/2007): Die disziplinären Grundlagen der Wissenschaft. <epub.oeaw.ac.at/ita/ita-manuscript/ita_07_08.pdf>
- ITA-08-01 Alexander Degelsegger (5/2008): „Frames“ in sozialwissenschaftlichen Theorieansätzen. Ein Vergleich aus der Perspektive der Technikforschung. <epub.oeaw.ac.at/ita/ita-manuscript/ita_08_01.pdf>
- ITA-08-02 Jens Hoff (11/2008): Can The Internet Swing The Vote? Results from a study of the 2007 Danish parliamentary election. <epub.oeaw.ac.at/ita/ita-manuscript/ita_08_02.pdf>