

NTNU
Norwegian University of
Science and Technology
Faculty of Social Sciences
and Technology Management
and Political Science
Department of Sociology and Political Science

Karoline Hovstad

Online news as a source to political knowledge.

A comparison between Norway and the United States.

Master's thesis in statsvitenskap

Trondheim, Spring 2012

Acknowledgements

First I have to thank my advisor, Toril Aalberg. This thesis would not have been possible without her. First and foremost for giving me the idea for the project and for the dataset, but also for her valuable guidance and feedback. Throughout the process she always made me think for myself.

I would like to thank Randi Ann Fagerholt for letting me stay with her when I was in Trondheim, for proofreading, and for giving me encouragement throughout the process.

I have to thank my dad for letting me use his attic as a study room when I was sick of the library. I also owe my mom many hugs for always listening to my concerns and frustrations.

My deepest gratitude goes to Stian Mathiassen who proofread my thesis, helped me with SPSS problems, and most of all, for being sane and positive when I was not.

Lastly, I offer my greatest gratitude to all of those who supported me in any respect during the completion of the thesis. It has been a tough process, but I made it.

For any errors or inadequacies that may remain in this work, of course, the responsibility is entirely my own.

Contents

1. Introduction	1
1.1 The Structure of the Thesis	3
2. Theory and previous research.....	5
2.1 Why a well-informed citizenry is important for democracy	5
2.2 Media consumption and political knowledge.....	8
2.3 People’s changing media and news habits	12
2.4 How Norway and the United States are different.....	15
2.5 Characteristics of different media consumer groups	17
2.5.1 Age	17
2.5.2 Education.....	18
2.5.3 Gender	19
2.6 Is online news a supplement to or a substitution for traditional media?	19
2.7 Hypotheses	21
2.7.1 Online news.....	21
2.7.2 Political knowledge	21
2.7.3 The different media user groups.....	21
3. Method and Data	23
3.1 The method.....	23
3.1.1 The comparative method	23
3.1.2 Regression Analysis	23
3.2 The dataset.....	24
3.3 The dependent variable	24
3.4 Descriptive statistics – Operationalization of the variables.....	24
3.4.1 Political knowledge	24
3.4.2 Media consumption	26
3.4.3 Gender, age, and education	26
3.4.4 Political interest and confidence.....	27
3.4.5 Norway and the United States	27
3.4.6 The media groups	27
3.5 Discussion on the method – reliability, validity, and generalization.....	29
4. Results and discussion.....	31
4.1 Frequency distributions	31
4.1.1 Media consumption	31
4.1.2 Political knowledge	33
4.2 Bivariate analyses.....	34
4.2.1 Online news reading and political knowledge.....	34
4.2.2 The media groups	37
4.3 Regression models.....	42

4.3.1	Reading online news	42
4.3.2	The different media consumers and political knowledge	45
4.4	Summary of the hypotheses and the findings.....	48
5.	Conclusion.....	53
6.	Bibliography.....	55
7.	Appendix	61
7.1	Method	61
7.1.1	Descriptive statistics tables.....	61
7.1.2	Political knowledge	65
7.1.3	Education.....	66
7.2	Results and discussion.....	67
7.2.1	Bivariate analyses.....	67
7.2.2	Regression models.....	70
7.2.3	Alternative regression analyses	74

Tables

Table 1:	Percentage of respondents who answered correctly on knowledge questions	25
Table 2:	Media consumer matrix.....	28
Table 3:	Bivariate analysis for reading online news	34
Table 4:	Bivariate analysis of political knowledge	35
Table 5:	Bivariate analysis of omnivorous consumers.....	38
Table 6:	Bivariate analysis of modern consumers.....	39
Table 7:	Bivariate analysis of traditional consumers	40
Table 8:	Bivariate analysis of the disconnected media consumers	41
Table 9:	Regression analysis for reading online news, the United States and Norway separately	43
Table 10:	Regression analysis for political knowledge and the different media groups, United States and Norway separately	46
Table 11:	Summary of the hypotheses	48
Table 12:	Matrix of characteristics of the media consumer groups	49
Table 13:	Descriptive statistics for Norway and the United States	62
Table 14:	Descriptive statistics for Norway	63
Table 15:	Descriptive statistics for United States.....	64
Table 16:	Percentage of respondents who answered correctly on knowledge questions	65
Table 17:	Correlation between knowledge variables	65
Table 18:	Mean of political knowledge and Cronbach's α	66
Table 19:	Cronbach's α if variables were excluded	66
Table 20:	Bivariate analysis for Reading online news, Norway and United States together	67
Table 21:	Bivariate analysis for Political knowledge, United States and Norway combined	68
Table 22:	Bivariate analysis of omnivorous consumers, United States and Norway combined	68
Table 23:	Bivariate analysis of modern consumers, United States and Norway combined	69
Table 24:	Bivariate analysis of traditional consumers, United States and Norway combined.....	69
Table 25:	Bivariate analysis of the disconnected media consumers, United States and Norway combined	70
Table 26:	Regression analysis for reading online news, the United States and Norway combined.....	70
Table 27:	Regression analysis for reading online news, the United States and Norway separately, model 4.....	71

Table 28: Regression analysis for political knowledge and the different media groups, Norway and the United States combined.....	72
Table 29: Regression analysis for political knowledge and the different media groups, Norway and the United States separately, model 3	73
Table 30: Alternative regression analysis for political knowledge	74
Table 31: Alternative regression analysis for political knowledge and the different media groups, Norway and the United States combined	75
Table 32: Alternative regression analysis for political knowledge and the different media groups, Norway and the United States separately	76
Table 33: Regression analysis for reading online news, the United States and Norway combined	77
Table 34: Alternative regression analysis for reading online news, the United States and Norway separately.....	78

Figures

Figure 1: Frequency distribution for online news consumption.....	31
Figure 2: Frequency distribution for newspaper reading	32
Figure 3: Frequency distribution for TV news	32
Figure 4: Frequency distribution political knowledge.....	33
Figure 5: Frequency distribution for political knowledge and media groups.....	37

1. Introduction

An enlightened people is a prerequisite for a well-functioning democracy. If the common citizens do not participate, or at least monitor, the political processes, there will be room for despotism, and the political liberties that we take for granted in most of the western world, will vanish. It is through interaction with others, the citizen gets the most of his or her information about politics and other social events. This can be through conversations with friends and participation in political meetings, but *most* people get some or all of their political information and knowledge from the media.

The media sphere is continuously changing; first there were newspapers, then the introduction of radio and the television, and then, nearly two decades ago, the internet appeared. Albeit the internet is much more than just news and community information, the focal point of this thesis is online news. As when other new media have been introduced into the media sphere, the internet has entered as a supplement rather than a replacement for the traditional media. It is this supplementary relationship I want to examine, and that is my research question: *How the internet is used as a source to news in a relation to television and newspapers and if the consumption of online news is instead or in addition to traditional media.* The purpose of this thesis is founded on the basis that an enlightened citizenry is the girder of democratic society. Therefore I will analyze this media relationship in the context of the level of political knowledge of the people. To narrow the thesis, I will compare Norway and the United States.

Internet is changing the way that we consume political (and other) information and knowledge, and it is happening fast. In The State of the News Media Survey's eighth edition, in 2010, for the first time, more people said they got news from the web than newspapers (this is an American study). In the United States, news consumption online has increased as much as 17 percent over the past year (Rosenstiel and Mitchell 2011), but internet penetration is still higher in Norway than in the United States. The time a person has for consuming media content is naturally limited, and there is a competition for attention between the media. In the article by Blekesaune, Elvestad & Aalberg (2012), where they study why some people choose to disconnect from media, they also notice that it seems as if the use of internet comes as a supplement to traditional media, when it comes to acquiring political information. However, in that article they use a data set that does not have a question of how much the respondent use the internet for news, only general internet usage (European Social Survey). I will here use another data set that has a question of how much the respondents read online news, and

try to answer the research question. This dataset was collected for the project “Media Systems, news content and public perception of political reality”¹.

Naturally the way that the media is organized in a certain country, is affected by its history and its democratic system. I am going to study the United States and Norway. The reason for choosing these countries is that they represent different media systems and therefore can help reveal different aspects of media, and especially, internet usage. Norway is part of the Northern European democratic corporatist model. Although, this model is traditionally characterized by a strong relationship between politics and organizations and press, the press has over the years become more independent. An example of this being the newspapers which were connected to political parties. Today the newspapers still exist and many of them with similar political affiliations as before, but few of them are still regarded as party press. The United States is included in the Liberal Model which is characterized by that commercial newspapers developed early and with little state involvement (Hallin and Mancini 2004). In this system commercial television is very important, and public service broadcasting has gotten a more marginal role, with less financial support from the government and other contributors. Viewers might have to turn to other sources for political information. Norway has, along with several other countries in the western world, gotten more news coverage the last two to three decades, but in the United States the total volume of news has been decreasing. Still, the total amount of news is higher in the United States than in Norway (Aalberg, van Aelst, and Curran 2010). Internet penetration is overall higher in Norway (and very high on a global scale) than in the United States (Vaage 2010; Pew Research Center 2010)

Because of these historical differences in the media systems, I expect different consumption patterns in the two countries. These differences between the two countries are interesting and important to study because it gives us a broader perspective than if I only were to study one of the countries by itself. I will not go into great detail about the media system characteristics, but give a brief presentation about the previous studies on media consumption patterns in Norway and the United States, and present the systems in more detail than in this introduction. I expect that because of the differences in media structure, and general societal differences, the analyses will reveal some large differences. At the same time, because of the many similarities between the American and the Norwegian ways of life, the results will show some overlapping results. For the analysis of the media consumers in the two countries, I will

¹ Read more about the project here: <http://www.svt.ntnu.no/iss/Toril.Aalberg/mediasystems.html>

use bivariate correlation analyses and regression analyses. This way I find differences between the individual consumers; who uses online news instead of traditional media and who uses online news as a supplement, as well as differences between the countries in these aspects. I expect to find the biggest differences in consumption of online news because this is a new media and is not fully integrated into all groups of society yet. I expect that the places where I find the greatest similarities are the effects of education on both online news reading and political knowledge.

1.1 The Structure of the Thesis

In the second chapter, previous research on this theme is presented. This includes both relevant fundamental democratic principles, previous research on the democratic models, political knowledge, people's changing media habits, including how different groups of people use media in different ways, and a review of which direction researchers think the development will be in. This chapter is concluded with the hypotheses that are the foundation of the analyses.

In the third chapter, the methodology is presented, including a presentation of the data used, operationalization of the variables, and a discussion of the methodological choices taken.

In the fourth chapter, the analyses are presented, including descriptive statistics, multivariate regression analyses, and a discussion on the findings.

In the fifth and last chapter, the essence of the findings is retrieved and I attempt to look forward.

2. Theory and previous research

“The democratic citizen is expected to be well-informed about political affairs. He is supposed to know what the issues are, what their history is, what the relevant facts are, what alternatives are proposed, what the party stands for, what the likely consequences are” (Berelson, Lazarsfeld, and McPhee 1954, 308).

2.1 Why a well-informed citizenry is important for democracy

Throughout democratic history, there has been some sort of media to tie the people to the ruling power and vice versa, so that there is an information flow. In a democracy, the politicians are the ones that govern and they are accountable to the people. In this system, it is necessary that the media convey the political business, so that the people can decide if this is the manner in which their society should be governed. To sum up why studying people’s use of news is important, I use the words of Alex Jones (2009, 35): “When the news media are doing their job, we have enough information to make informed decisions, and when they are not, we are – as a nation – in jeopardy of being misled”. Meaning that if we as a people do not pay attention to what the government does, we risk that they make decisions that do not favor us or implement measures that only favors themselves. William Galston (1991, 227) also explains the political virtue of citizenship: “the willingness and ability to engage in public discourse and evaluate the performances of those in office”. The media has both an obligation to engage people in political and social affairs and give them an opportunity to monitor what is going on there. It is important to address these aspects of an informed citizenry and the media because “a shallow citizenry can be turned into a dangerous mob more easily than an informed one” (Gillmor 2006, 6).

In the context of political knowledge and the “informed citizen” it is essential to understand the information in a context, and see the relationship between incidents (Hagen 1997). Hagen, as well as Berger and Luckmann (1995, 11), address that people have to understand the meaning of what they absorb and to do that they have to put it in a context with a point of reference; “consciousness of the fact that a relationship exists between experiences”. According to Hagen (1997), when studying Norway, there are three reasons for consuming news: To stay informed (which is the reason most people give for watching the news), to get a description of society that links the viewer to society, and to be entertained. To stay informed is viewed by many Norwegians as a duty. According to Graber (1984) the Americans have the same feeling of civil duty. At the time of these studies, news on

television, along with radio and newspapers, were the options for getting news. Many in the Norwegian study say that they feel like they ought to watch the news on television, although they not always like the way it is presented and sometimes do not understand the information (Hagen 1997). Today there is an option to get online news instead, and this gives the consumers a choice of how they want the news to be presented.

There are some quite alarming trends in media today, especially when it comes to newspapers and especially in the United States. Cutbacks in the media business have been huge in the last decade, and the financial crisis has only made it worse. However, in 2010 most sectors seemed to recover. The exception is newspapers, which was the only medium that suffered a continuing revenue decline. In the United States, it is estimated that newspaper newsrooms are now 30 percent smaller than in 2000 (Rosenstiel and Mitchell 2011). Journalists losing their job is not in itself a problem for democracy and political knowledge, as long as the public gets the information it needs. If the quality of news is reduced, *that* might be a democratic problem because the citizen can no longer monitor the political affairs. Also, traditional news organizations, both old and new, still produce most of the content audiences consume, and it is so far little sign that bloggers and independent writers will take over (Rosenstiel and Mitchell 2011). If there is no one to take over the role of the watchdog, media will lose one of its functions and democracy will suffer.

Democracy needs citizens able to deliberate on issues relevant to society as a whole, and not only those that each individual may be personally concerned about (Habermas 1991). Today media in general is one of the most important public spheres. Many critics or prophets of the internet as a democratic tool focus on it as a general public sphere, not on the concrete content (in my case online newspapers). Habermas himself is very skeptical to whether the internet can be a true public sphere, because he thinks that it only creates single issues, and not a sphere (Neuman, Bimber, and Hindman 2011). Whether the internet eventually can develop into a public sphere that even Habermas can approve of, the future will tell. As for the online newspaper in itself, its nature is largely focused on single issues and isolated stories, and will probably not be anything but a component of a public sphere. However, I think online newspapers will become an important component as it reaches larger penetration in society.

An argument for why knowledge is important in a citizenry is, according to Delli Carpini and Keeter (2003), that knowledgeable people are more accepting of political norms, more politically efficacious, more interested in politics, and more likely to participate in politics. All which are important factors for a true deliberate democracy. Other factors that are

related to a “good citizen” are that they have more opinions about politics, and that they have more stable and consistent opinions. This makes informed citizens less likely to be confused by misleading information, and less likely to be turned into a “dangerous mob”, as Gillmor (2006, 6) calls it. Those who report that they have a high level of political knowledge is also more likely to vote in elections (Milner 2002).

Most of the people who fear for journalism, and especially American journalism, are pointing to the inevitable ties between commercialism and journalism. When making money is more important for the media than to be the “watchdog” of society, the result is that accurate and balanced journalism that holds government accountable is marginalized, and tabloids and entertainment take over. The internet is not what they blame directly, which is the economy, but internet is changing the way we consume news and information, which indirectly affects the printed press. If quality journalism persists in the form of the internet, everyone will be happy; the problem is to find a good form and a system for it. Jones (2009) regards the development of news with skepticism. He is himself a newspaper man and has personally watched good colleagues being fired. What he is the most frightened about is “diminishing quantity and quality” (xviii) and, as he says, “not one of press bias” (xviii). He sees that the news business is trying to figure out what the future will bring. He talks about the “iron core” of journalism; this includes news from abroad, news about politics, and news of business. This is news “whose purpose is to hold government and those with power accountable” (Jones 2009, 3). From an American perspective, he feels that this iron core is in danger because the newspaper business is doing very badly. This is dangerous because a lot of the journalism that we hear about in television and online originally comes from newspaper journalists’ work. Jones, as well as, Patterson (2000), argue that this development does not come directly from the entry of the internet as a new and competing medium, but because the traditional media markets are not doing well economically. This has opened up for more soft news, which does not give the audience the information about public affairs that they should receive, so-called hard news, and instead get shocking and scandalous stories. Internet is for instance, taking over for classified ads (e.g. Craigslist in the United States and Finn in Norway). Therefore, there will be more focus on cheap news and what the audience as a unity wants. This, he thinks, will be more entertainment and less core news.

Media’s role is divided in two: it should both present to the public the most urgent issues in society that the people should worry about, and they should give the people a broader perspective, so they do not get too preoccupied with only one or a few issues (de Waal and Schoenbach 2008; Gans 2003). I assume that the majority of the respondents in the

analysis consume some sort of news on a regular basis. Both because most people regard it as a civil duty to stay informed, but also to be able to evaluate and monitor those in office, to get a description of society, and maybe to be entertained. Those that do not, and are completely disconnected from the world of news, probably have very different characteristics than the rest, as well as between countries. In Norway, where a large part of the population follows news frequently, there might be a bigger stigma to be disconnected than in the United States, where the level of news consumption is not as high (Blekesaune, Elvestad, and Aalberg 2010). To achieve the ideal informed citizen is difficult for the press because many rather want to be entertained. In the coming sub-chapter I will present what previous studies have found when studying people's news consumption and political knowledge.

2.2 Media consumption and political knowledge

It is getting easier to acquire information. It is cheap in both time and in effort compared to what it used to be; especially considering that so many people have access to the internet. Therefore, and because acquiring information normally is costly (Downs 1957), logically people will gain more political knowledge from media today than they did before. An opposing view is that because the amount of information in the media, both entertainment and political information, the gaps between the already knowledgeable and those uninterested will grow (Prior 2007, 2005; Bonfadelli 2002; van Dijk and Hacker 2003). There are already big gaps between the very knowledgeable and the uninformed (Delli Carpini and Keeter 2003). More light will be shed on this relation by studying people's consumption patterns.

In Norway, the overall media consumption has increased, from 274 minutes in 2000 to 328 minutes in 2009 (Vaage 2010). The media channel which has had the greatest impact on this increase is the internet. In 2010, 77 percent of the Norwegian population, ages 9-79, used the internet on an average day. Still, 82 percent of Norwegians in the same age span watch television on an average day. Newspaper readership is higher in Norway than in the rest of the world, but also here the consumption is declining. 64 percent of Norwegians read the newspaper every day. In 1997 this percentage was 84 percent of the population (Vaage 2010). When it comes to contact with the different media as sources to news, newspapers have the highest percentage of consumers. 72 percent answered that they read newspapers for news in 2009. Watching news on television and reading online news have almost the same size of their audience, 50 and 53 percent respectively. In this study, 93 percent of the population had been in contact with at least one news source that day (Høst 2010). The increase in media consumption in general shows a "more of everything" news environment (Høst 2010). There

is more competition among the media actors and they all have to deliver more entertaining content to entice the consumers. This puts pressure especially on public service broadcasting that might lose viewers, but still has a responsibility to inform the citizens.

In the United States, 44 percent said that they had gone online for news yesterday, this is including mobile devices. 36 percent of Americans said that they used both traditional and digital sources to get news. In comparison, only 26 percent said that they got news yesterday from a printed newspaper. 39 percent said that they only use traditional sources, and just 9 percent rely only on the internet and mobile technology for news. Americans say that they spend the same amount of time watching news on television as they did in 2000, 57 minutes, but they also use an additional 13 minutes getting online news. This does not take into account the time spent on getting news on cellphones and other digital devices (Pew Research Center 2010). This shows that there is a “more of everything” news environment also in the United States. Ahlers (2006) finds that there is only 12 percent direct substitution from offline to online news consumption. There are another 22 percent of American adults that have substituted some online news for offline news. However, a considerable part of this group uses online media as a supplement rather as a substitute. Even among the internet generation, in this case being college students, they do not abandon traditional media, but use different media to complement each other (Diddi and LaRose 2006).

From these studies we find that Norwegians have a more extensive consumption of news than the Americans. Newspaper readership is where Høst (2010) finds the biggest difference, 31 percent daily readers in the United States and 72 percent in Norway. 83 percent of Americans had been in contact with a news source that day, compared to 93 percent in Norway.

Andersen and Kristensen (2006) have made a matrix of political interest (widespread/limited) and use of media for political orientation (daily/occasionally or rarely) which gives four types of citizens: active citizen, faithful citizen, individualistic citizen, and indifferent citizen. The classic types are indifferent and active citizens, respectively those that do not care and do not consume news and those that are very politically interested and consume a lot of news. The faithful citizens are those that consume a lot of news, but that are not very interested. The individualistic citizen is a contradiction; someone who is engaged and interested in politics, but who does not follow current events in media. He or she is interested in pursuing his or her own interests, less than the common good. They define an active media consumer as one that uses at least one media source daily to acquire information about politics.

Delli Carpini and Keeter (2003, 131) have five conclusions about what Americans know about politics: “(1) the average American is poorly informed but not uninformed; (2) average levels of knowledge mask important differences across groups; (3) most citizens tend to be information generalists rather than specialists; (4) knowledge is a demonstrably critical foundation for good citizenship; and (5) little change has occurred in any of these tendencies over the past fifty years”. They are generally positive to an increase in political knowledge as a result of the internet. Americans know in general less about politics than Europeans, including Norwegians. This is both related to international and soft news. They do a little better when the international questions concern Americans affairs (Curran, Coen, Aalberg, and Iyengar 2012). Political learning is a sum of the information people are exposed to, their ability to understand and adopt this information, and their motivation to do so (Luskin 1990). In this thesis, I mostly look at the information people are exposed to, and whether this has an effect. I leave their motivation to a different study to answer.

Because of the role of the media as an information channel, it is interesting to see which media source that leads to the most knowledge. There seems to be a consensus in previous literature that printed newspapers contribute to the most “agenda richness”, meaning that they help increase the span of public agenda (e.g. de Waal and Schoenbach 2008; Allen and Izcaray 1988; Guo and Moy 1998). The reason for this is thought to be the format of the newspaper, where a lot of information is presented simultaneously. This way, also small and maybe uninteresting information (for the reader) will be noticed, giving the reader more information than he or she expected or wanted originally. However, it is not guaranteed that it will be read, although it is right in front of the reader. The radio or television do not have the same space as the newspaper, and will have to be more selective in what they broadcast, as well as not being able to present many issues simultaneously. Logically then, because of the infinite space of the internet, this medium will give the audience even more information about more issues in the public sphere. This is not, however, what previous studies have found. Some even the contrary (Eveland and Dunwoody 2001; d’Haenens, Jankowski, and Heuvelman 2004; Eveland and Dunwoody 2002; Althaus and Tewksbury 2002). The most plausible reason is that online newspapers lack the structure of the printed newspaper that makes it easy for the reader to follow and not be overwhelmed, which can happen when the path is unclear and there is an abundance of information. The key term here is “passive learning”, and is why printed newspapers still gives more general information (Lupia and Philpot 2005; Tewksbury, Weaver, and Maddex 2001). Online the reader is encouraged to make his or her own path. This can stimulate to more in-depth learning, but it also minimizes

the chance of accidental learning (de Waal and Schoenbach 2008). The freedom of choice of the internet makes it easy for people to miss or avoid something important; this is even more selective than switching the channel of cable television. In the study by de Waal and Schoenbach (2008) they found that online newspapers did not have a significant effect on awareness of societal issues. Printed newspapers had an effect, but only among those who were interested and who relied on printed newspapers; only reading a newspaper did not have an effect. Shoenbach, de Waal, and Lauf (2005) find that whereas online newspapers show this effect only in the highest educated group of society, printed newspapers are able to expand the horizon of those whose range of interests is at most average. People have to be interested and believe in the value of newspapers if reading a newspaper is to have an effect (de Waal 2007).

Other studies are almost all positive about the effects of online news. The findings of Dalrymple and Scheufele (2007) reveal that users of online newspapers have higher levels of both integrated and differentiated knowledge in the American Presidential election in 2004, even after controlling for printed newspaper and television use. Printed newspaper use is only related to factual political knowledge, and television news use is unrelated to any of the measures of knowledge about the presidential campaign. Some studies have shown that access to online news does not lead to a decrease in knowledge of public affairs (Drew and Weaver 2006; Kenski and Stroud 2006; Xenos and Moy 2007). Eveland, Seo, and Marton (2002) found that newspapers and television news produced more overall accurate recall than online news, but that the internet helped users structure political knowledge better.

There seems to be a consensus in previous studies that there is a big fragmentation in the population when it comes to political knowledge, and that this will only grow larger as people have more of a chance to choose their media content of their liking. In general Norwegians read more printed and online news than Americans, and as mentioned early in the chapter, they consume more news overall than Americans. These findings I am likely to find also in the analyses in this thesis. Delli Carpini and Keeter (2003) give us some advice as to what should be studied; the most important being that there are interesting differences across the groups of people, which I later will test. They find that political knowledge and online news consumption seem to be correlated, but this might only be for the most highly educated group, and researchers have gotten different results. Printed newspapers and political knowledge are also thought to correlate.

2.3 People's changing media and news habits

Media can be the technological methods and devices, or it can be looked at as a form of people communication. It is where these two concepts intersect the fun begins. Media is a concept that is so vast that it is difficult to concentrate on just one idea without also having to look to different concepts to explain. According to Lisa Gitelman (2006) there are two ways to look at media: Firstly, a medium is a technology that enables communication. Secondly, a medium is social and cultural practices. Media is both a delivery system and a cultural system. Although I will look at the cultural part of the concept media, it can be unreasonable to totally forget the technological part of media as well. I will use the term media to refer to news media; newspapers, magazines, television, and radio (as done in Noll 2007). The technology of the internet will probably eventually conform to the political culture, rather than the other way around (Papacharissi 2002). Therefore the technology in itself will not be discussed in the context of the content and the different people using the different media. It is a new public space, but whether it will become a “public sphere” is up to the users, and not to the technology itself.

As with the introduction of the printing press around 1455, and the eventual obsolescence of the scribes, we are in an overlap period between two dominating media; the printed newspaper and the digital newspaper, or more general, analogue and digital media. One of the first prophets of convergence, “technological, industrial, cultural and social changes in the ways media circulates within our culture” (Jenkins 2006, 282), is, according to Jenkins, Ithiel de Sola Pool. He talked about the blurred lines between media, both between point-to-point communications, such as post, telephone, and telegraph, and between mass communications, such as the press, radio, and television. Each media did their own thing, and did hardly get involved with other media and markets. Pool thought that this stemmed from habit and political choices, rather than the characteristics of the particular media. He predicted a long transition period, where the different media would compete and collaborate (Pool 1983). Nicholas Negroponte published in 1995 the best-seller *Being Digital* where he predicted the collapse of broadcast networks in favor of narrowcasting and niche media on demand. He was sure that the computer would not transform mass culture, but destroy it (Negroponte 1995). As Jenkins (2006) emphasizes, we are today still at the point where we are unsure about the media culture's future and form, and everything is changing really fast. The content and the status of the medium might change, but usually a new medium does not squeeze out old media right away (Jenkins 2006). Saffo (as cited in Fidler 1997) coined the term “30-year rule” as for how long it takes from a new medium is developed in the

laboratory until it reaches widespread adoption. When a new medium arises, it always builds on the existing media features. Internet is in the fifth media, the digital media; the four first are speech, written texts, print, and analogue electric media (radio and television). As we see here, the new medium did not replace the old, but add to the old and change the usage of this (Finnemann 2005). The internet has existed for about 30 years, depending on how you define its birth, and it has reached widespread adoption, at least in Europe, North America, and Asia.

Increased media choices today affect what we watch and the internet will further increase our choices. Prior (2007) argues that this development is not only negative or positive, but both. The informed and motivated will have unlimited access to political information, but the uninterested can very easily avoid it: “motivation, not ability, is the main obstacle that stands between an abundance of political information and a well- and evenly informed public” (589). This indicates that the traditional cleavages will persist, which is a notion supported by Räsänen (2006). In addition to Blekesaune et. al. (2012), Norris (2001) also thinks that the internet comes as a supplement rather than an alternative to traditional news media use. Golding (2000) and Nie, Stepanikova, Pals, and Zheng (2006), on the other hand, argue that many people use the internet to stay updated rather than through traditional media. How easy it is to choose and to avoid news is defined by the media system in that country at that time (Prior 2007). When it comes to general news habits “the concept of single media usage is fading” (Ahlers 2006, 34). We as consumers use different kinds of media, both at the same time, multitasking, and sequentially. Older people tend to multitask less than younger people. Many use both online and offline media, and do not care where the information comes from. The television used to be a nation-builder in the 1960s and 1970s, but today there are several channels for every little interest, and the internet further continues to cultivate these niches (Katz 2009).

Shirky (2008) thinks that the reason that the internet revolution has come as a shock for most news people, is because they could not fathom that something that was not professionally produced would affect them. Internet is neither a newspaper (from which they would expect competition), a different media outlet, a business, nor an institution. Media professionals have traditionally been gatekeepers, controlling and providing access to entertainment, information, and communication of sorts. This has been a resource that needs special training, which have made it a scarce resource and not one that the common man possesses. Copying and distributing the written word used to be difficult and monopolized by the media, but is now something most consumers have the technology for. The problem with a change in a profession is, as he points out, that “it is easier to understand that you face

competition than obsolescence” (Shirky 2008, 59). In the future, there will be an increasing demand for people who understand the public’s changing media behavior and what they want. People will expect to get exactly what they want, when they want it, and someone has to bring this to them (and fit advertising to this content). This does not sound like a journalist’s job (Rosenstiel and Mitchell 2011).

We can filter what we see and that is a problem for democracy because we need to hear other opinions and information than we find convenient. Evidence supports the idea that people’s political beliefs are related to their media exposure—a pattern that persists across media types (Stroud 2008). People get information from and discuss politics with likeminded people, which creates polarization (Sunstein 2007; Margolis and Resnick 2000). This is called selective exposure theory (Zillmann and Bryant 1985). This can create much more radical and extreme views, which can have positive effects, but also very negative (Sunstein 2004). For instance, specialized news and issues can be a gateway to more general politics and social issues (Delli Carpini and Keeter 2003). It is a moral dilemma that news and general information about the world and politics become more and more customized. Democracy as we know it today is based on discussion, and discussion comes from not all people agreeing (Paraphrasing the words of Alexander Hamilton, Federalist). Heterogeneity is a creative force. The new news and information habits of the modern people, with customizing information, infotainment, and only consuming news about certain areas of interests and opinion, combats this.

Although there are extremely many sites on the internet, people mostly use the sites that belong to large media brands. Online news readers select public affairs content less often than they select other news content. People do not read news from a broad field on the internet. They can choose what they like and ignore the rest. Online news is traditionally not a substitute for traditional media, but this can be a transitional phase (Tewksbury 2003).

There is disagreement among researchers when it comes to comparing online and printed newspapers’ effect on democratic awareness. Some say that the role of the internet for promoting democratic citizenship (political efficacy, knowledge, and participation) is limited. This is regardless of time spent online (Scheufele and Nisbet 2002). Some support the printed newspaper, and thinks that it creates a richer public agenda than other information channels. Online newspapers can be only “alarm news”, in that it is easy to follow breaking news and top stories. Online newspaper reading seem to be complimentary, and not instead of traditional media (de Waal 2007). On the other hand, D’Haenens, Jankowski, and Heuvelman (2004) found no evidence that online readers consume and retain news differently from

readers of the print versions. Exposure to news outlets with high levels of political content (such as public television news and broadsheet newspapers) contributes the most to knowledge gains and increases the tendency to vote. Online news consumption and political participation is closely correlated to an existing predisposition to participate in real world politics (Bonfadelli 2002; Norris 2001). A positive relationship is found between engagement on the internet and civic and political participation. However, these articles suggests that the Internet exacerbates the already present socioeconomic bias and political interest (Weber, Loumakis, and Bergman 2003; Johnson and Kaye 2003; Graber 1996; Nisbet and Scheufele 2004). Exposure to news outlets with less political content has either no effects or slightly positive effects, depending on the type of content (de Vreese and Boomgaarden 2006).

Mitchelstein and Boczkowski (2010) claims that people's news habits have not changed drastically and that they are still very much influenced by traditional media patterns; this despite the increase in sites and technology. As we see from the presentation of various views on the topic of the development of newspapers, there is difficult to get an unambiguous answer. Most research shows that printed newspapers have an advantage on online newspapers when it comes to giving the reader good information. One thing that is certain is that different media are more integrated and collaborate more than they have in the past. Printed newspapers also publish stories online, especially if it is breaking news. If the story calls for it, they can also add a video. This is also a result of the big media houses getting bigger and buying the competition.

This collaboration will result in people having to search harder for opposing views, which might make the knowledge gap bigger. However, when so much information is online and for free, everyone has access. This means that all it takes is motivation to find political information. If reading printed newspapers leads to more political knowledge than other media, we might face less knowledgeable times. However, the media is both technology and communication, and although the technology is changing people still need communications. This will, no doubt, also change, but probably not as fast as the technology.

2.4 How Norway and the United States are different

Norway and the United States are two countries that have many similarities in media and culture, but also many differences. These originate in their history and their traditions. The two media systems that the countries are divided into are very broad, but this categorization can be fruitful when we eventually try to draw parallels to other countries and systems. They are similar enough so that we can compare concepts that mean the same in the two countries,

and they are different enough, so that we learn something new from using a comparative method.

Aalberg, van Aelst, and Curran (2010) find that there are more news and current affairs information on television in the less commercialized media systems and TV channels. Especially with regards to state involvement, the liberal and the Northern European democratic corporatist models have very different starting points. In Norway there is the Public Broadcasting Corporation (NRK) that since the introduction of television in the 1960s has had a large impact on the Norwegian media system. Jenssen (2009) argues that there is no empirical evidence that suggests that watching either the state owned channel NRK or the commercial channel TV2 has an impact on the general level of political knowledge. However, the well-informed prefer NRK. In the democratic corporatist model, Hallin and Mancini (2004) say, are mainly small countries (except from Germany) with political models based on compromise and power sharing. Traditionally this media system is characterized by strong relationship between politics and organizations and press, although these characteristics have to some extent vanished in the development of modern media. It has developed into a so-called “dual system” of commercial and public service media (Dimitrova and Strömbäck 2005). In the liberal model, commercial newspapers developed quite early and were therefore dominant of commercial media. Traditions of political neutrality tend to be strong (except in Britain). Commercial broadcasting has played a larger role in this model than in most of Europe. In both media systems, there is also a high level of professionalism, meaning a commitment to the public interest, and independence from social powers. These models also gained freedom of press early, although there is a high level of public sector involvement in the media in the democratic corporatist model.

Both countries are advanced democracies. What separates them is how the democracies are organized. Norway has a multi-party system with several parties. In the last decades they have had to form coalitions because no party has gotten enough support to rule alone. The United States has mainly a candidate-centered campaign system, especially because of the Presidential elections. In most of the West European countries there are more party-centered campaign systems. In a candidate-centered campaign the voters will have a bigger need to find information about the candidates, and the candidates have a bigger need to present themselves. Therefore, Karlsen (2010) argues, the incentives to go online in a candidate-centered campaign country is larger than in countries where the same parties are running year after year. In Norway, for instance, we know what the Conservatives and the

Labor party stand for if you once have learned it in one way or another.

Many of the studies reviewed are American. Therefore it is important to study this comparatively. There can be differences between countries because of the political systems or because of media consumption. I do assume, on the background of this, that I will find that Norwegians consume more news in general because of the strong position public broadcasting still has there. NRK does not have to entice the viewers the same what that commercial media must do to get advertising. In the United States it is also generally more difficult to get news, especially on television (Brekken, Thorbjørnsrud, and Aalberg 2010). Because of a “more of everything” news environment in Norway, and that the overall news consumption of Norwegians is so high, I expect that online newspapers come as a supplement to traditional media there, but that it substitutes traditional media in the United States.

2.5 Characteristics of different media consumer groups

In the previous studies, the background variables that are the most salient are age and generation cohort, education, family income, race, and gender. Socioeconomic factors lead to fragmentation (Graber 1996; Papacharissi 2002; Tewksbury 2005) which can be bad in relation to knowledge about public affairs. When looking at the increase in the time spent with news, from 2006-2008 and 2010, it is the highly educated, especially the post graduates and the age group 40 to 64 that boost the numbers (Pew Research Center 2010). The other groups have not increased significantly.

2.5.1 Age

Age is both about the physical and mental maturity, and societies expectations and norms about the social behavior (Nilsson 2005). Age includes two elements: life experience and generation cohort (Milner 2002). In the words of Jenkins (2006, 18-19): “If old consumers were assumed to be passive, the new consumers are active. If old consumers were predictable and stayed where you told them to stay, then new consumers are migratory, showing a declining loyalty to networks or media. If old consumers were isolated individuals, the new consumers are more socially connected. If the work of media consumers was once silent and invisible, the new consumers are now noisy and public”. Those in their 30s are the only age group in which a majority (57 percent) reports getting news on one or more digital platforms. Young people use more digital technology in their daily life than the older age groups, but they use these sources for news at the same rates (Pew Research Center 2010). Younger people are more used to multi-tasking while the older are more used to a linear environment (Ahlers 2006). Although young people use less traditional media and more internet to acquire

news, the agenda of issues that was important to them correlates with media's issue agenda (Coleman and McCombs 2007). Online news sites are becoming a primary news source for college students (Lee 2006). Parker and Deane (1997) find that the great divide is between those over and those under the age of 30. Young people are in general less interested in news about politics than older people (Wayne 2010).

Studies from Sweden (Nilsson 2005) show that young people today read the traditional morning newspaper less frequently than the young people before, and that their attention is turned to television and internet. Some of the difference between old and young is explained by the young people's use of free internet versions of the newspapers online, but not all of it. Subscription to the morning newspaper is today a product that it is easier to live without.

In *The Dumbest Generation*, the author argues throughout the book that young people (defined as those under 30) today is getting dumber in all fields, also history and civil awareness, despite the digital equipment. They use the technology less to learn about the world and more for communication with peers (Bauerlein 2008). Despite the potential that the internet is the most democratic medium that we have seen, people seem not to be more cognitively equipped to participate in politics. As Bauerlein argues is the case with the kids, that they use the internet more for communication with each other and for entertainment, as argues Keen (2007) is the case for the whole American population.

2.5.2 Education

Online newspapers contribute to widening the public agenda only in the higher educated groups, while printed newspapers are able to widen the horizon of those whose range of interest is at most average (de Waal 2007). More education alone cannot make people aware of more issues in society, people need to be exposed to information as well (de Waal and Schoenbach 2008). But as, for instance, Bonfadelli (2002) claims, education gives people the skills they need to acquire, understand, and use this information.

In an experimental study from Korea, Yang and Grabe (2011) found that the high education group comprehended news with the same level of efficiency across online and newspaper formats while low education participants gained more knowledge from reading a newspaper than using an online news source. Education is usually a strong predictor of political knowledge, and I expect it to be so in my analyses as well. People that choose to take an education probably have more knowledge in general and that is one of the reasons why they choose to learn more. Also, when being in an academic environment, among likeminded people, this knowledge can be stimulated further. There is also a possibility that people learn

something in their studies that give them more references when consuming news.

Because of greater class differences in the United States, I expect education to be a stronger predictor of political knowledge here than in Norway.

2.5.3 Gender

Men are better informed about national politics than women (Verba, Burns, and Scholzman 1997) and Delli Carpini and Keeter think that the reason is that women are less interested, efficacious, and engaged in politics (1992). The background variables they also think has an effects, is that men more often work outside of the home, or have a job that stimulates political interest and efficacy. The level of formal education for women is lower among the older cohorts. The gaps persist even though relevant background variables are controlled for. The areas where the difference between the genders are very small is where women feel more “at home”, local issues, abortion issues, school, and family issues. Because these studies were done about 15 years ago, I expect, and for the sake of democracy, hope, that things have changed.

Half of all men get news on digital platforms, but only 39 percent of women (Pew Research Center 2010). The men in a study by de Waal (2007) spent less time watching television the more time they spend reading online newspapers.

Men have always had a larger likelihood to read a daily newspaper (Sternadori and Wise 2010). Women also tend to be drawn to pleasant stories, while men are drawn to unpleasant stories. However, difference women are drawn to different news; working women prefer consumer safety, health, environment, food, and wars while housewives prefer to read about crime, economics and science (Sternadori and Wise 2010).

In my study, I probably find that men read more newspapers: However, the differences might be smaller in Norway than in the United States, because there are less stay at home moms in Norway, and that they are more outside the house being stimulated. In the United States, 22.6 percent of married-couple family groups with children under 15 had a stay-at-home mother (U.S. Department of Commerce 2010), compared to about 10 percent of married/living together women in the age group 25-59 years in Norway (Kitterød and Rønsen 2011). Besides this, I assume that the typical online news consumer is a highly educated young male, and a typical knowledgeable consumer is a highly educated older man that reads a printed newspaper.

2.6 Is online news a supplement to or a substitution for traditional media?

There are two main views in this debate. First, there is the camp that argues that the decrease

in traditional news media is not a big problem, because this is caused by people just having changed the news “platform”. Second, there are those that argue that the internet has not replaced traditional media. It is rather used as a supplement. The content or the ways we use online news indicate that we still need traditional news media.

Norris (2001) finds that the internet comes as a supplement rather than an alternative to traditional news media consumption; this meaning that people still use the traditional media as well. Golding (2000) and Nie et. al. (2006) argue that many people use the internet to stay updated on ongoing affairs rather than through traditional media. In a study among Dutch respondents, visiting online newspapers was a substitute for using printed newspapers among young people. Among the population as a whole, people used both online and printed newspapers. People using online newspapers both visit other sites online and use other media more frequently than people who do not use online newspapers. Women use online newspapers and watching television as supplements to each other, but do not use other media as supplements. When it comes to time spent on reading online newspapers, this does not have anything to say for time spent on other media, except for being used as supplements for other news sites online (de Waal, Schönbach, and Lauf 2005).

The people that express the most optimism for the media future, is those that support citizen journalism. Bruns (2008) is one of them, and he writes about what he calls “produsage”. This means that content is created by the user, and that the distinctions between the users and the producers have faded. This connects to what I mentioned before about how the common man today much easier can create something and publish it online, and that the need for professional publishers is decreasing. This unfiltered information can bring forth new and important issues that the traditional media previously have not been concerned with. At the same time it can also decrease the quality of media and news in general, if quality journalism is becoming too expensive. Democracy needs someone to watch public affairs and report back to the citizens. This costs resources that someone has to come up with. Traditionally this has been a combination of the government (to some degree), advertising, and the consumer. The consumer will probably have to continue to be a part of this if the democratic standards of the press will continue.

In this chapter I have presented several views and theories of how online news is used to attain more political knowledge, in comparison with traditional media. My expectations are summed up below in the hypotheses.

2.7 Hypotheses

Below I present the hypotheses that are used in the regression analysis. They are based on the information presented and the assumptions made in this chapter. They will help me in answering the main research question.

2.7.1 Online news

H1: Online newspapers are a supplement to traditional media.

H2: Younger people are more likely than older people to get their news online.

H3: Online newspapers are a supplement to traditional media among the age groups 30 and older, but not among the younger age groups.

2.7.2 Political knowledge

H4: Men have a higher level of political knowledge than women.

H5: There are smaller differences between the political knowledge of men and women in Norway than in the United States.

H6: People acquire more political knowledge from printed newspapers than from online newspapers.

2.7.3 The different media user groups

H7: People with a high level of education are less likely to be disconnected than those with a low level of education.

H8: The disconnected citizens have a lower level of political knowledge than other people.

H9: Traditional news consumption correlates higher with political knowledge than modern news consumption.

3. Method and Data

The aim of the study is to see how people consume news affect their level of political knowledge. Because I want to know how this relationship differs between countries, I will have a comparative approach. By combining the main dependent variables, political knowledge, with the main independent variables, media consumption, in a regression analysis, I can test an assumption that a difference in media consumption can explain a difference in political knowledge, both between individuals and between the countries. The main focus is on the individuals, but by comparing Norway and the United States, I can also see how one macro factor affects political knowledge.

Below, I present the method of analysis and the dataset, before I explain why I have chosen a comparative method. Lastly, I describe the operationalization of the variables used in the analyses.

3.1 The method

3.1.1 The comparative method

Throughout the thesis I use the comparative method presented by Landman (2003): Contextual description, classification, hypothesis testing, and prediction. In the second chapter I have already provided a contextual description of the media environment in Norway and the United States. I do this on the basis of, among other things, a classification of countries into media systems. To make us able to explain these findings, I have made hypotheses based on this, and then test these hypotheses in regression analyses. In the end, I will try to make predictions and draw parallels to other countries, although this will not be the main object of the thesis. This is also what John Stuart Mill calls the Method of Difference (as cited in Moses and Knutsen 2007). The United States and Norway are similar in many ways, for instance being stable democracies, but they differ in the way that the media system has developed and functions today.

3.1.2 Regression Analysis

To answer the research question I will use a quantitative analysis with survey data. I will look at how the citizens use media to acquire information. This is a variable-oriented study that is a quantitative study of the relation between characteristics of the respondents (X) and indicators of political knowledge (Y). The focus is toward the correlation between aspects of the

individual cases (Ringdal 2007, 161). The regression analyses are done with data collected in the United States and Norway.

3.2 The dataset

The survey is initiated by the project “Media Systems, news content and public perception of political reality”. In addition to the questions about people and events that have been in the media recently, the respondents answered questions about media usage and socioeconomic background. The survey was launched January 26 2009 and completed January 31 2009 (Strabac and Aalberg 2011). The survey includes the following sections: Media consumption, Hard/soft news knowledge, Political interest and trust, Free market regulations and immigration, and Socio-demographic profile. The data is collected by telephone, by Gallup. In this analysis the data from Norway and the United States are used.

In this study, where the internet is one of the main variables, it is important to underline that this study is done by phone, and by using both landlines and cell phones. This is important to make sure to get a correct sample by reaching all kinds of people.

The data used in the analysis is analyzed in the data program SPSS. Because of the number of respondents, I will accept a level of significance of 5 percent. The figures are created in Excel.

3.3 The dependent variable

Technically both online news and political knowledge can be both dependent and independent variables, and they can affect each other. It is likely that the causality goes both ways. It is not unthinkable that those with political knowledge consume more news, and by doing so gaining more political knowledge. This is what Pippa Norris calls the “virtuous circle”, and the downward spiral is “media malaise”(2000). This notion shows that it is difficult to logically define which variable is dependent and which is independent, and this is a technological choice I make from what is most suitable for the analysis and the hypothesis testing. Because it is very likely that political trust and confidence also affect this virtuous circle they are included in the analyses. This way I can answer the hypotheses, which are all important aspects of this field of study.

3.4 Descriptive statistics – Operationalization of the variables

3.4.1 Political knowledge

Below I present how many percent answered correctly on the knowledge questions.

Table 1: Percentage of respondents who answered correctly on knowledge questions

Question	Norway	United States	Difference and significance test
Who is Nicolas Sarkozy?	76.6 % (N=1000)	41.3 % (N=1000)	Difference = 35.3 Pearson's $\chi^2 = 257.468$, df = 1, p = .000
Who is Robert Mugabe?	63.1 % (N = 1000)	28.1 % (N = 1000)	Difference = 35.0 Pearson's $\chi^2 = 246.912$, df = 1, p = .000
Who is Hamid Karzai?	35.3 % (N=1000)	38.3 % (N=1000)	Difference = 3.0 Pearson's $\chi^2 = 0.855$, df = 1, p = .355
What is OPEC?	83.8 % (N=1000)	87.6 % (N=1000)	Difference = 3.8 Pearson's $\chi^2 = 5.891$, df = 1, p = .015
What is Hamas?	86.2 % (N=1000)	62.7 % (N=1000)	Difference = 23.5 Pearson's $\chi^2 = 145.161$, df = 1, p = .000

Originally both the Norwegian and the American respondents were asked six similar questions. I have used five of these questions because the sixth question correlated badly with the other variables and because including it created a low Cronbach's alpha. More on this in the appendix (page 65 - 66). Above, we see the questions included, and they can all be characterized as in the "iron core" of journalism; news from abroad, news about politics, and news of business (Jones 2009). As we see, on some of the questions, there are big differences between how the Norwegians and the Americans answered. In two of the questions, more Americans than Norwegians have answered correctly, but in both of these questions the difference is very small. On the questions about Karzai, this difference is not significant. On the question about OPEC, this difference is significant on the normal 5 percent level. In both these questions the respondents of the two countries have similar premises to answer correctly. Both countries are involved in operations in Afghanistan, and both countries export oil. None of these countries have a bigger reason to know the answer to this question. In the other three questions, a higher percentage of Norwegians answered correctly. In the questions about Sarkozy and Mugabe, this difference is the biggest. On the question about Sarkozy, this

might be a result of Norway being geographically closer to France and more involved in European politics. In the question about Mugabe, there are no obvious reasons for this difference. In the question about Hamas, where the difference is significant, but not huge, there is also no apparent reason for this difference. Both countries are involved in the conflict in the Middle East, some way or another. We see that Norwegians generally have more knowledge about international affairs.

I have created dummy variables out of all the knowledge questions where the value 1 means that they have answered correctly and the value 0 means that they answered incorrectly or that they have not answered or are marked as missing. These questions were then added in an index with values from 0, when they have answered wrong on all of the questions, to 5, where they have answered correctly on all the questions.

The knowledge questions will in combination make up a knowledge scale. I have done a factor analysis and checked the internal reliability of the scale (presented in the appendix, page 61-62). The Cronbach's alpha is little below the .7 limit, but because the variables logically fit in the same scale, I will keep it.

3.4.2 Media consumption

On all the media consumption variables, reading online news, watching TV, and reading newspapers the scale goes from 1 through 5. The value 1 means seldom or never; 2 means 1-2 days per week; 3 means 3-4 days per week; 4 means 5-6 days per week; and 5 means every day.

3.4.3 Gender, age, and education

The first and second background variables that I have included in the analyses are gender and age. Gender is a dummy variable where man has the value of 1 and woman has the value of 0. In total, the distribution is 982 women and 1018 men. Some previous research has looked at generation cohorts instead of age, but because I do not follow the generations over time, I choose to use age as a continuous variable, with 17 as the minimum and 96 as the maximum value. This way I can also add a curvilinear term to see if the relation is linear or not. One of the hypotheses calls for an analysis where online news consumption is tested for those older and younger than 30 years. This is not in the main analyses because of the lack of robustness, as the categories are very different, 9.3 percent in the age group 17-29 years and 89.3 in the age group 30-96 years. They are presented in the appendix (table 33 and table 34, pages 77 and 78).

The education question is posed to the respondents as a categorical variable with ten

categories in the Norwegian survey and eight in the American. Both of these variables are categorized into four categories to make it easier to follow in the regression analysis. Because the two education systems are different, it is quite difficult to directly compare them, and the results I get in the combined regression analysis have to be analyzed with a grain of salt. The categories of the dummy set are 1=compulsory education in Norway and level under high school in the United States; 2=High school level; 3=higher education equal to bachelor degree; and 4=finished master degree or higher. See the full list of education categories of the two countries in the appendix (pages 66 - 67).

3.4.4 Political interest and confidence

At the end of the analysis variables about the respondents' political interest, political confidence, and political knowledge are added. In the political interest variable² the values go from 1 through 4. 1 means not at all interested; 2 means hardly interested; 3 means quite interested; and 4 means very interested. In the political confidence question³ the categories are 1=frequently; 2=seldom; 3=occasionally; 4=seldom; and 5=never.

3.4.5 Norway and the United States

The country dummy is included as a background variable. There are 1000 respondents in each country.

3.4.6 The media groups

At the same way as Ahlers (2006) investigates the different media consumers, by dividing them into four groups, as have I done: (1) respondents that have a high consumption of both new and traditional media, "the omnivorous consumers"; (2) respondents with high consumption of news in new media, but low in traditional media, "the modern consumers"; (3) respondents that have low consumption of news in new media, but high consumption of news in traditional media, the "traditional consumers"; (4) the respondents that do not use either traditional nor new media to consume news, "the disconnected"⁴.

² "How interested would you say you are in politics?"

³ "How often does politics seem so complicated that you can't really understand what is going on?"

⁴ I have chosen to not include radio because little of the literature mentions it, so some of these might use radio as a source to news.

Table 2: Media consumer matrix

	Television		Printed newspapers		Online news	
	High consumption	Low consumption	High consumption	Low consumption	High consumption	Low consumption
Omnivorous consumers	X		X		X	
Modern consumers		X		X	X	
Traditionalist consumers	X		X			X
Disconnected consumers		X		X		X

Andersen and Kristensen (2006) characterize a consumer who uses at least one media source daily as an active citizen. Although we cannot know directly how many news sources the respondents use per day, this is an underlying guideline when operationalizing the media groups. Those that are in the category of omnivorous media consumers are those that have answered that they use TV news, newspapers, and online news at least 3-4 days a week. Those in the category of modern media consumers have answered that they read online news at least 3-4 times a week and watch TV news and read printed newspapers 1-2 days a week or less. In the category of traditional media consumers I find those that report that they read online news 1-2 days a week or less and those that watch TV news and read printed newspapers at least 3-4 days a week. The disconnected are the respondents that do not read online or printed newspapers or watch TV news more than 1-2 days per week. Those respondents that do not fall in either of these categories end up in the reference category, “other media consumers”. These are for instance people that answered that they watch television and read online news 3-4 times a week or more, but do not watch news on television. They are neither omnivorous, modern, traditionalists, nor disconnected.

As you can see from the descriptive statistics (in the appendix table 13 – table 15, pages 62 – 64), some of the categories have very few respondents. The media categories where this is a problem are the modern and the disconnected media consumers, and in the United States these categories are especially small. Overall, there are not that many respondents that are in the “other group”, only 28.2 percent. However, in the United States there are as many as 40.6 percent (15.8 percent in Norway). This is a little much because I want the groups to be more even. Still, there are 59.4 percent of Americans that I *can* analyze

in a media group.

There can be argued that the groups are too wide, and that 3-4 times a week is not frequent use. The problem, however, when narrowing the categories are that almost half the sample falls outside of the categories and the test is not very robust. The results that I present in the main body of the thesis are a result of the operationalization above. In the appendix (table 30 – table 32, pages 74 – 76) the alternative regression analyses are presented, where frequent use is 5-6 days a week or more. The reader will see that the results are very similar.

3.5 Discussion on the method – reliability, validity, and generalization

Reliability in a regression analysis is whether or not the measuring is reliable. There are both random and systematic errors. Because the survey is created by professional researchers, and the data is collected by a professional analysis agency, there should be few of these errors and the quality, I can expect to be high. Also, the number of people that has not answered in the questions is low. The highest number of missing respondents is in the question of political confidence, where 23 respondents have chosen not to answer. In some of the variables, the questions might have a social desirability aspect, meaning that the respondents have answered what they think others want to hear. For instance that they say that they read more newspapers than they indeed do, because they think that this makes them cooler. This can both be a factor with the media consumption variables and with political interest variables. I cannot control this, but have to have it in mind. In the knowledge questions, I do not have the same problem. Here the reliability is good because it is not easy for the respondent to “fake” correct answers. If the respondent guesses, he or she will statistically only answer correctly 25 percent of the time. At the same time, this format hopefully does not discourage the respondents too much, as questions without alternative answers might do (Delli Carpini and Keeter 1993). What people consider “online news” can be very different. I will not go into a detailed discussion about this, but we have to keep in mind that people might have different understandings about what this question implies. Many (maybe all) television stations and newspapers have websites, and this might confuse some respondents. Some might also use YouTube or similar sites as a news source. Also, people might have stated that they read more newspapers than they do, because this question comes first in the survey and because some might think of online newspapers as “newspaper”. To exclude radio from the analyses, clearly weakens the reliability of the analyses, especially in that we do not know if those that we call disconnected really get their news from radio. As studying the disconnected was not the main issue in this thesis and because much of the literature does not include radio, this choice was made. Still,

the findings are very interesting.

Validity is whether or not there is accordance between the empirical indicators and the theory (Ringdal 2007, 86). I have created a knowledge index. This index is about international matters alone, and therefore, it will have a rather low validity, compared to if it covered a range of political questions. Also, although it covers many different areas of international politics, names of heads of state (Mugabe, Sarkozy and Karzai), other government actors (Hamas), and international non-state actors (OPEC). Some of these questions might favor Americans because they geographically and politically are closer, but Norway might score better on matters that have been covered more in the media there. Because the main dependent variable is an index, I have tested the internal consistency, or validity, by using Cronbach's alpha. Usually we want a value of Cronbach's alpha higher than .7 to consider the index reliable. In this case it is .674 in the combined index (both Norway and the United States) and .663 in the United States and .669 in Norway. This is a little low. Future researchers of political knowledge should do is using a dataset with more knowledge questions, in different areas of politics and society. This way the results would be more robust, and we could be more certain of the overall level of political knowledge of the respondents.

After seeing the results of this study, it could be fruitful to try to answer why we get these results by interviewing the groups of people that we notice in particular. Due to time and funding limitations this is not done. However, it could be a good follow up investigation, to get a deeper understanding of how people use the internet as a source of political information and knowledge. It could also have included a country from the Polarized Pluralist Model that is the Mediterranean countries of southern Europe (Hallin and Mancini 2004), but in this study, the systems in themselves are not the question, and therefore only an aid to answering the research question. Another interesting analysis could be to separate between the genders, age groups, and education groups and see which use the different media as substitutes and which use them as supplements.

One big challenge is the issue of causality. Many of the variables, especially the two that I have used as dependent variables, affect each other. This makes it more difficult to analyze the results. For instance it is difficult to say whether the politically inform prefer a certain medium or that they learn more from consuming these types of news. This issue is hopefully discussed enough throughout the text.

4. Results and discussion

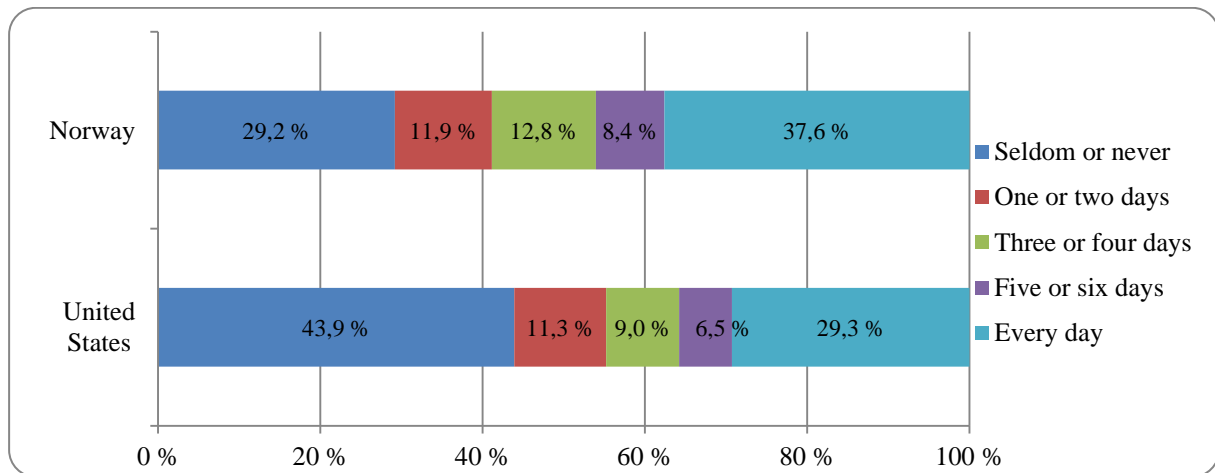
To examine which factors that affect who reads online news, I first present graphically the distribution among the respondent on the main variables. After this I do bivariate analyses on other key variables, and then, lastly, I do regression analyses. The main dependent variables are reading online news and political knowledge. Because I want to explore the factors behind reading online news and see what the differences are between Norway and the United States, I have presented the analyses of the United States and Norway separately. Where it is necessary, I have presented the combined in the appendix.

4.1 Frequency distributions

4.1.1 Media consumption

To make it easier to see the differences between Norway and the United States, I present below frequency distributions of media consumption. The missing values are excluded.

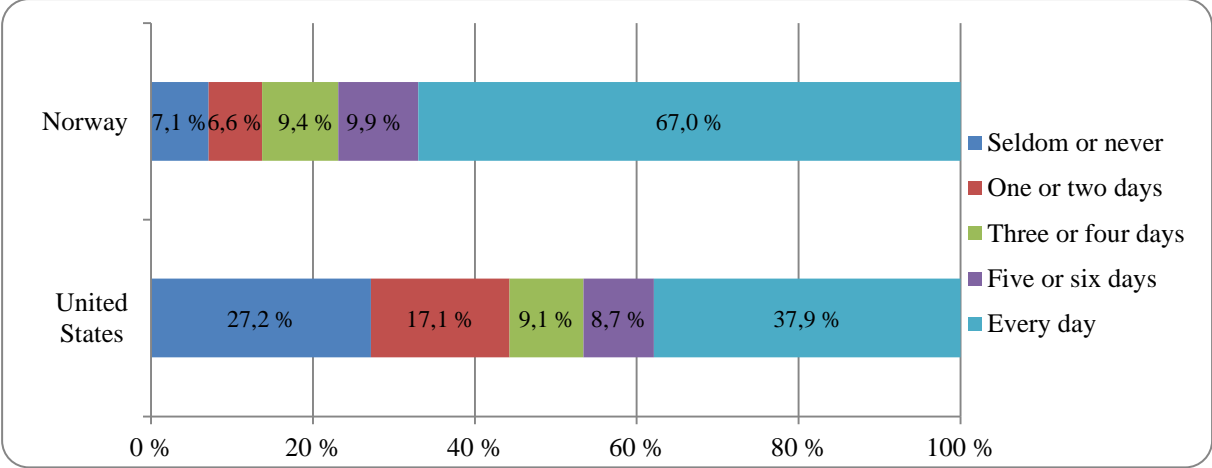
Figure 1: Frequency distribution for online news consumption



I see here a result that is in accordance with what other studies have found; that Norwegians get more news online than Americans (Vaage 2010; Pew Research Center 2010). The biggest difference is in the category of those who say that they seldom or never read online news, less than 30 percent in Norway and almost 44 percent in the United States. Some of the difference in online news consumption can be a result of a larger internet penetration in Norway than in the United States. The rest of the difference probably stems from a generally larger desire for news in the Norwegian population. Online newspapers favor more in-depth learning and urge the reader to create their own path. This can be difficult for an inexperienced user, and might take some training to master. I cannot from this say if there is a

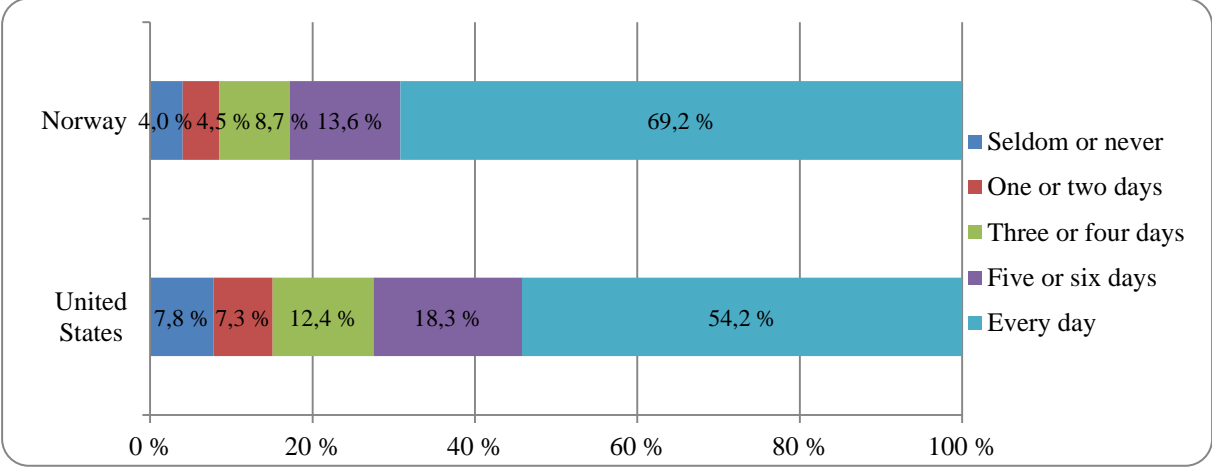
statistically significant difference between the countries, but I will get to that in the bivariate analysis and the regression analyses.

Figure 2: Frequency distribution for newspaper reading



On the question of newspaper reading, the Norwegians have much higher scores than Americans. The difference among the countries in the group that reads newspapers every day is almost 30 percentage points. Few Norwegians read newspapers seldom or never, but of Americans this number is almost 30 percent. This is in accordance with what for instance Blekesaune et. al. (2010) and plenty other studies have shown before; Norwegians are large consumers of newspapers and among Americans, only certain groups of people choose to read newspapers. If it is true that reading printed newspapers lead to more political knowledge than online newspapers (de Waal and Schoenbach 2008; Allen and Izcaray 1988; Guo and Moy 1998), then I assume that Norwegians are also more knowledgeable.

Figure 3: Frequency distribution for TV news



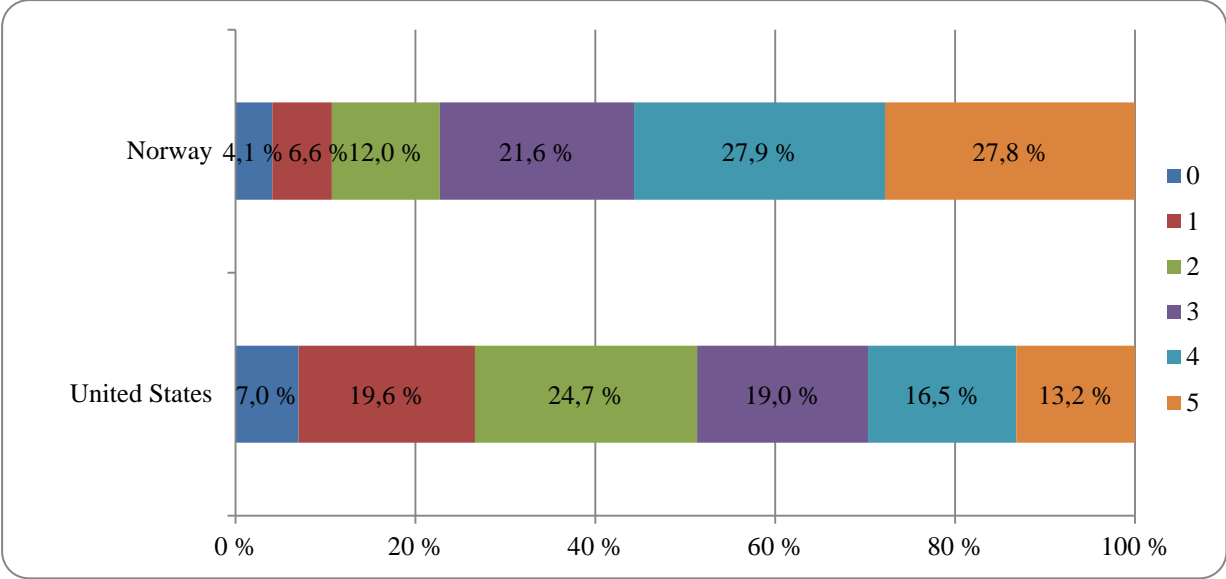
TV news is the media consumption category where the differences between the

countries are the smallest. In the category of watching news on television every day the difference is 15 percentage points, in Norway’s favor, but the other categories are pretty similar. Overall, we see that Norway consume highest in all the news media consumption categories in this analysis, which is precisely what I expected after reviewing previous literature on the subject. Figure one, two, and three confirm the findings in Blekesaune et. al. (2010) that few Norwegians never consume newspapers or television, but in the United States these numbers are higher. There is an issue here that people might report that they consume more news than they really do. However, the amount of over (or under) reporting is probably the same across the countries, although there might be a significant difference.

4.1.2 Political knowledge

To get an overview of the level of political knowledge in the two countries I present how the respondents have answered on the political knowledge questions. The categories are the number of correct answers in the political knowledge questions.

Figure 4: Frequency distribution political knowledge



In Norway, more people have answered in the highest categories than in the United States, meaning that Norwegians have more correct answers than Americans. In the United States the category with most respondents is the one with two out of five correct answers. There are as many as 7 percent of Americans that cannot answer a single question. In Norway this number is little over 4 percent. We see that most of the Americans can answer some of the questions, and that they are quite evenly distributed along the categories. It is difficult to tell from these findings if there is a knowledge gap in the population that is a danger to

democracy. This will eventually be clearer when we see which types of people that are knowledgeable and which are not.

4.2 Bivariate analyses

I have started out in a simple manner, to get a view of some central variables. Further, I look at some of the hypotheses and see if they can be tested in bivariate correlation analyses. This way I might be able to rule out any insignificant variables before starting the regression analyses. The bivariate analyses where Norway and United States are combined are included in the appendix (table 20 – table 25, pages 67 – 70). Note that the effect of one variable is not influenced by other variables.

4.2.1 Online news reading and political knowledge

First, I start with reading online news:

Table 3: Bivariate analysis for reading online news

	United States		Norway	
	Pearson's r	N	Pearson's r	N
Reading newspapers	-.059	996	-.126***	996
Watching TV news	-.183***	996	-.052	997
Age	-.333***	987	-.365***	990
Gender (man=1, female=0)	.161***	998	.205***	997
Level of education dummies ^a				
College	.085***	994	.100**	990
High School	-.203***	994	-.065*	990
Compulsory education/no high school	-.182***	994	-.168***	990
Political interest	.095**	994	.061	995
Political confidence	.208***	990	.102**	982
Political knowledge	.252***	998	.091**	997

Dependent variable: Reading online news

^a Reference category: Higher education

*) Sig. on .05 level

**) Sig. on .01 level

***) Sig. on .001 level

In Norway reading printed newspapers correlates negatively with reading online news. The more times a week a person spends on reading online news, the less he or she reads a printed newspaper; online news is a substitute for printed news. In the United States, there is no significant correlation. With watching TV news however, I find this correlation only in the United States. Here there is a pretty strong negative effect of TV news watching on online news reading, whereas in Norway, there is no effect. As the previous studies are mainly American, there might be a difference in the way that Norwegians and Americans read online newspapers. Norwegian online newspapers might be more like printed newspapers, and

therefore Norwegians only need to choose one of the two, while American online newspapers are more like television. This relation obviously needs more studying, I cannot reject H1 quite yet, and when I test for other effects in the regression analysis, I hopefully get a more nuanced and illuminating picture.

As expected, age and being a man has pretty clear effects on online news reading, age negatively and being a man positively. When it comes to education, I find something interesting. Those with the highest level of education, master degree or higher, are not the ones that use online news the most; that is those with a college degree. In the United States the education group that uses online news the least is the one with those who has a high school diploma. In Norway it is the group with compulsory education or less.

Political interest has a small but significant positive effect on online news reading in the United States, but not in Norway. Political confidence and knowledge have significant positive effects on online news reading in both countries. This paints a picture of an involved and politically confident and knowledgeable online news consumer. Now we look at political knowledge.

Table 4: Bivariate analysis of political knowledge

	United States		Norway	
	Pearson's r	N	Pearson's r	N
Reading online news	.252***	998	.091**	997
Watching TV news	-.022	1000	.092**	1000
Reading newspapers	.172***	998	.164***	999
Age	.059	989	.212***	993
Gender (man=1, female=0)	.208***	1000	.259***	1000
Level of education dummies ^a				
College	.013	996	.122***	993
High School	-.206***	996	-.220***	993
Compulsory education/no high school	-.203***	996	-.116***	993
Political interest	.438***	996	.463***	998
Political confidence	.317***	992	.301***	985

Dependent variable: Political knowledge

^a Reference category: Higher education

*) Sig. on .05 level

**) Sig. on .01 level

***) Sig. on .001 level

As we saw in the previous table, table three, there is a positive correlation between political news knowledge and online news consumption in both the United States and in Norway, but this effect is stronger in the United States. Reading printed newspapers also has a positive effect on political knowledge in both countries. It is interesting to see that political knowledge has the same effect on printed newspaper reading in both countries. I expected

there to be a difference here because the circulation is so much larger in Norway, and that the newspaper is for everyone, no matter the political knowledge level (Vaage 2010; Blekesaune et al. 2010). When it comes to watching television news compared to political knowledge, we see a difference between the two countries. There is no significant correlation between political knowledge and watching television news in the United States, but there is a weak, but significant positive correlation in Norway. This can come as a result of the content of the television news in the two countries. Norwegian TV news might be easier to understand or cover more international topics. In the United States, news are largely local news and about American affairs abroad (Aalberg et al. 2010). Therefore people gain different information from television news that is reflected in the answers here. It can also be that knowledgeable Norwegians choose to watch TV news while in the United States, it does not matter which knowledge level a person has for watching TV news.

These findings give us no choice but to reject H6, *People acquire more political knowledge from printed newspapers than from online newspapers*. Because I do not follow up on this in the main body of the text, where the regression analyses are done with media user groups and not the different media, I have tested these relations against other effects in the appendix (table 30, page 74). When I test for other effects the positive relation between online and printed newspapers in the United States is maintained. Still online newspapers correlate stronger than printed newspapers with political knowledge. In Norway there is no significant relationship between any of the media variables and political knowledge. I do not find the same differences between the media as previous research has shown.

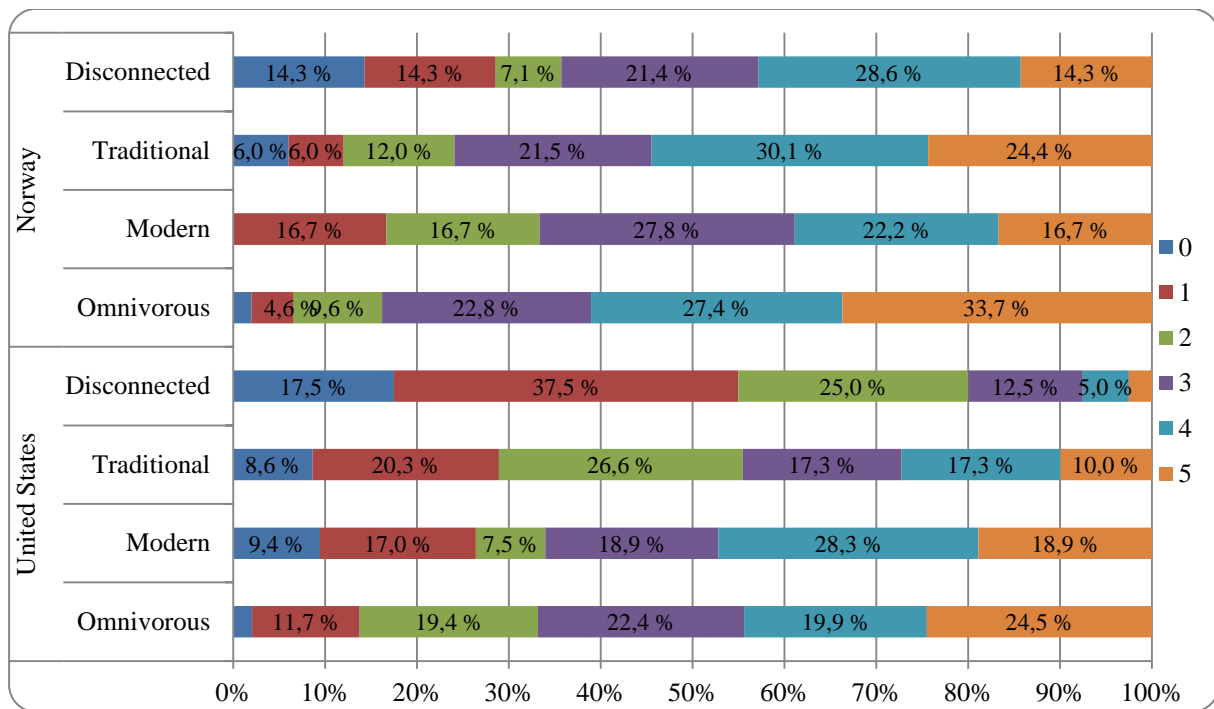
In the United States the age does not have an effect on political knowledge, but in Norway older people are more knowledgeable than younger people when it comes to politics. Men know more about politics than women in both countries. If this result sticks when adding the background variables in a regression analysis, I have to reject the null hypothesis of H4, *Men have a higher level of political knowledge than women*.

We see that there is no difference between the knowledge level of people with college education or more in the United States, but in Norway, those with a college degree are more knowledgeable about politics than those with a higher degree. In both countries, the two lowest education groups have about the same level of political knowledge compared to the highest education group. This level is pretty far below the level of political knowledge of the highest educated. Political interest and confidence have strong positive effects on political knowledge in both countries.

4.2.2 The media groups

To look at the different media groups more closely, I first present all of them in a bivariate figure with political knowledge, then I present a bivariate analysis for each of them, and compare them to relevant background variables. Only the analyses where Norway and the United States are presented separately are presented here. The combined analyses can be viewed in the appendix (table 20 – table 25, pages 67 – 70).

Figure 5: Frequency distribution for political knowledge and media groups



Here, I present how the different media groups answered on political knowledge, in the United States and in Norway. We see that the omnivorous consumers are those with the most correct answers in both countries. The disconnected in the United States have very few correct answers, 55 percent have no or only one correct answer. In Norway the disconnected group has answers spread out on all categories, but is still the media group with most people in the low answer categories. The reason why the disconnected consumers in Norway have a fairly high level of political knowledge can again be because it is more difficult to avoid news there, while in the United States, the consumer must seek news to get it. Modern media consumers score quite low in Norway. Here the traditional media consumers are the second most knowledgeable group. In the United States the traditional consumers score quite low. The American modern consumers have almost the same scores as the omnivorous consumers. More people have answered in the two highest categories among the modern than among the

omnivorous consumers. In the United States, to look up news online can be something the knowledgeable do. We can also hope that people gain more knowledge by reading news online, and that the future of political knowledge is online, but here previous research differ. Bruns (2008) thinks that the consumer will take over more of what is published online and that this will bring forth new and previously unknown topics. Delli Carpini and Keeter (2003) thinks that first getting interested in niche topics might lead to a more general political engagement later. However, many researchers are concerned with selective exposure and customization of news (Stroud 2008; Zillmann and Bryant 1985; Sunstein 2007; Margolis and Resnick 2000). Also, there is a question whether the news we get online really is any different from what we get from printed newspapers and television, as most of the online news sites are owned by large media brands.

Now, the different media groups are compared to the background variables in bivariate analyses.

Table 5: Bivariate analysis of omnivorous consumers

	United States		Norway	
	Pearson's r	N	Pearson's r	N
Age	-.050	985	-.129***	989
Gender (man=1, female=0)	.094**	996	.154***	996
Level of education dummies ^a				
College	.027	992	.098**	989
High School	-.144***	992	-.106**	989
Compulsory education/no high school	-.114***	992	-.108**	989
Political interest	.124***	992	.183***	994
Political confidence	.126***	988	.113**	981
Political knowledge	.208***	996	.160***	996

Dependent variable: Omnivorous media consumers

^a Reference category: Higher education

*) Sig. on .05 level

**) Sig. on .01 level

***) Sig. on .001 level

When it comes to the omnivorous consumers, we see that age does not correlate in the United States, but that it has a negative effect in Norway. It is interesting that the effect is so clear, that younger people are omnivorous consumers more often than older. It probably is because older people use internet less. We see that there are more men than women in this group in both countries, but there are relatively more men than women in Norway than in the United States. In the United States it has nothing to say if you have a college or a higher degree to be in this group, but those with high school are least likely to be omnivorous consumers. In Norway, those with a college degree are more likely to be in this group than

those that have higher education. It seems as if the higher educated are not omnivorous. Which media outlets they prefer is difficult to determine from my analyses, although table nine indicate that this group are the most avid consumers of online news. Back to this table, those with a high school diploma or less education are least likely to be in the omnivorous consumer group. Political interest, confidence, and knowledge have positive effects on being in this group, in both countries. There are more omnivorous media consumers in Norway than in the United States.

To characterize the omnivorous: it is a man who has high political interest, confidence, and knowledge. In Norway he is also an older man with a college degree.

Table 6: Bivariate analysis of modern consumers

	United States		Norway	
	Pearson's r	N	Pearson's r	N
Age	-.150***	985	-.166***	989
Gender (man=1, female=0)	.108**	996	.033	996
Level of education dummies ^a				
College	.031	992	-.002	989
High School	-.073*	992	-.056	989
Compulsory education/no high school	-.022	992	-.043	989
Political interest	-.052	992	-.103**	994
Political confidence	.078*	988	-.058	981
Political knowledge	.062	996	-.039	996

Dependent variable: Modern media consumers

^a Reference category: Higher education

*) Sig. on .05 level

***) Sig. on .01 level

****) Sig. on .001 level

This analysis shows us that it is difficult to categorize the modern media consumers, especially in Norway. One characteristic is that people who use only new media are significantly more likely to be younger. In the United States they are also more likely to be men, but in Norway there is no effect of gender. In the United States those with high school diplomas are less likely to be in the group than those with higher education, but the other education groups have no significantly different effect. In Norway there is no effect of education on being a modern media consumer. In the United States political confidence has a significant and positive effect on being in the group, but in Norway this is also insignificant. Political interest does not have an effect in the United States, but in Norway I find a negative effect. I find (appendix: table 23, page 69) that there are more modern media users in the United States than in Norway, which is not surprising considering how much news Norwegians consume in general and printed newspapers specifically. Norwegians, as we see in the table five, tend to be more omnivorous.

Table 7: Bivariate analysis of traditional consumers

	United States		Norway	
	Pearson's r	N	Pearson's r	N
Age	.384***	985	.363***	989
Gender (man=1, female=0)	-.087**	996	-.173***	996
Level of education dummies ^a				
College	-.010	992	-.089**	989
High School	.132***	992	.032	989
Compulsory education/no high school	-.026	992	.158***	989
Political interest	.083**	992	-.026	994
Political confidence	-.120***	988	-.074*	981
Political knowledge	-.061	996	-.049	996

Dependent variable: Traditional media consumers

^a Reference category: Higher education

*) Sig. on .05 level

***) Sig. on .01 level

****) Sig. on .001 level

The traditional media consumers are a bit easier to get a picture of. Age has a strong positive effect here, in both countries, and being a man has a negative effect. This is no surprise; older people use the internet less than the younger, and women use the internet less for news than men (Pew Research Center 2010). When it comes to education in the United States, only high school has a significantly different effect from higher education and this is positive. In Norway high school does not have a significant difference from higher education, but college has a negative effect and compulsory education has a positive effect. In the United States political interest has a positive effect on being a traditional media user, and political confidence has a negative effect. In Norway political interest does not have an effect, but political confidence has a small negative effect. Political knowledge does not have an effect in either country. This might stem from women generally having less political efficacy than men (Delli Carpini and Keeter 1992). There are more traditional users in the United States than in Norway.

To sum up, the traditional media consumer is old and female. In Norway she has low education. In the United States she has high school diploma, is somewhat interested in politics, but has little political confidence.

Table 8: Bivariate analysis of the disconnected media consumers

	United States		Norway	
	Pearson's r	N	Pearson's r	N
Age	-.121***	985	-.072*	989
Gender (man=1, female=0)	.019	996	-.032	996
Level of education dummies ^a				
College	-.047	992	-.014	989
High School	.053	992	.036	989
Compulsory education/no high school	.078*	992	.051	989
Political interest	-.182***	992	-.131***	994
Political confidence	-.002	988	-.076*	981
Political knowledge	-.139***	996	-.058	996

Dependent variable: Disconnected media consumers

^a Reference category: Higher education

*) Sig. on .05 level

***) Sig. on .01 level

****) Sig. on .001 level

The disconnected media user correlates negatively with age in both countries. In neither country is there an effect of gender. In the United States there is a positive effect of having no high school, but the other categories do not distinguish from higher education. In Norway there is no effect of education. In both countries there is a strong negative effect of political interest. Political confidence only has an effect in Norway, and this is negative. This might stem from cultural differences; for instance that Americans are more confident in answering this question than Norwegians. However, this difference probably comes from that the disconnected in Norway is a more defined group of people, while in the United States they are less easy to categorize. In the United States there is a strong negative effect of political knowledge, but I do not find this in Norway. There are more Americans than Norwegians in this group.

Few of these results are surprising. That the disconnected citizen is young is in accordance with most of the previous literature (Bauerlein 2008; Blekesaune et al. 2010). That he or she also is not very interested in politics is only logical. Why would the person bother consuming news if they do not care? In today's society they can choose something different. Here the surprising results are that political knowledge does not correlate with being disconnected in Norway. This is in accordance with what they found in Aalberg's and Curran's book *How Media Inform Democracy* (2012), and that in Norway, it is difficult to avoid news, even if you try to avoid media. Another reason can be that the consumer that I call the disconnected, might be an avid radio listener. I have not included this medium, and can give us some wrong numbers when it comes to the disconnected. However, if the numbers are true, there is apparently less of a knowledge gap in Norway than in the United States. For

the time being, before the regression analysis, I can conclude that I have to reject H8, *The disconnected citizens have a lower level of political knowledge than other people*, for Norway, but not for the United States.

What I do find surprising from this is that education is not a significant factor in being disconnected. If you have a higher degree you are as likely to be in this group as a person with no education. However, we see from the results that the tendency is that those with a college degree is the least likely to be disconnected, and those with no high school is most likely to be disconnected. I might have been able to get significant results if the number of respondents were higher. Education is usually a robust background variable and you would think that being in an academic environment would increase the motivation of staying informed about politics. This means that I technically have to reject H7, *People with a high level of education are less likely to be disconnected than those with a low level of education*, although I can have the findings in mind and keep education as a background variable in the regression analyses.

4.3 Regression models

Above, I have presented the bivariate correlations, but to be sure that the independent variables do not correlate, I also do regression analyses of the most relevant relations. This way I get more accurate answers on the research question of how online news is used as a source of political knowledge. As mentioned above, I will use both political knowledge and online news consumption as dependent variables. This is necessary to answer the hypotheses and the research question.

4.3.1 Reading online news

In this subchapter I expect to find that younger people are more likely than older to read online news and that men are more likely than women to read online news. This does the previous research agree upon (Pew Research Center 2010; Ahlers 2006; Lee 2006), as well as my bivariate analyses and it would be a surprise to find anything different than this. Other background variables are unsure, although higher education, political confidence, and political knowledge do correlate in many of the previous studies.

In the tables below I present a block regression analysis. The regression for both countries combined is moved to the appendix (table 26 and table 28, pages 70 and 72) because of this thesis' focus on the differences between the countries. Where it is interesting, the findings here are discussed. In the first model the media consumption variables are included; in the second model the socioeconomic variables are included; and in the third model variables about political interest, confidence and knowledge are included. Model four

includes a curvilinear term and an interaction term of age x gender. This model is also moved to the appendix (table 27 and table 29, pages 71 and 73) because of the lack of interesting findings. The purpose of developing the models this way is firstly so that we can see which variables have an effect on reading online news, and secondly so that we can see if this effect still is valid after controlling for other background variables.

Table 9: Regression analysis for reading online news, the United States and Norway separately

	Model 1		Model 2		Model 3	
	United States	Norway	United States	Norway	United States	Norway
	B		B		B	
Constant ^a	3.726***	3.891***	5.064***	4.667***	4.344***	4.094***
Reading newspapers	-.029	-.164***	-.004	-.051	-.020	-.069
Watching TV news	-.240***	-.018	-.071	.161**	-.070	.148**
Age			-.029***	-.042***	-.030***	-.045***
Gender (man=1, female=0)			.393***	.721***	.257*	.625***
Level of education dummies ^b						
College			-.564***	-.092	-.391**	-.044
High School			-1.319***	-.527***	-1.012***	-.389**
Compulsory education/no high school			-1.863***	-	-1.439***	-.826***
				1.016***		
Political interest					.013	.165*
Political confidence					.072	.036
Political knowledge					.172***	.072
N	970	965	970	965	970	965
R ² adjusted	.033	.014	.212	.217	.234	.226
F change	17.410***	7.904***	38.308***	39.181***	30.556***	29.108***

^a Reading online news

^b Reference category: Higher education

*) Sig. on .05 level

**) Sig. on .01 level

***) Sig. on .001 level

Because of the findings in the bivariate analysis I had some expectations; the main ones being that newspaper reading in Norway is a substitute for online newspaper reading and that watching news on television is a substitute to online news reading in the United States. When introducing the background variables I see that the effect of reading printed newspapers on reading online news does not stay significant. I see that watching television news does not correlate significantly with online news reading in the United States after introducing the background variables age, gender, and education. In Norway, watching news on television did not have a significant effect on reading online news in the bivariate analysis, but here it becomes significant as the background variables are introduced. In Norway, reading online news is a supplement to watching news on television. When looking at the hypotheses concerning online newspapers, I see that H1, *Online newspapers are a supplement to*

traditional media, cannot be confirmed unconditionally. Reading printed newspapers does not have a significant effect in either country, but although in Norway online newspapers come as a substitute to watching news on television, in the United States I cannot find a relationship. There is no specific indication in the previous study why Norwegians use online newspapers and news on television in parallel. One thought is that, as mentioned in the bivariate analysis, that these two media are more different in Norway than in the United States and that they offer the consumer something different. Norwegian news is more about international issues while American mainstream news focuses largely on local issues (Aalberg and Curran 2012; Aalberg et al. 2010). In general we can say that Americans favor one medium, and that the elite reads newspapers with a focus on hard news, like New York Times and Washington Post (Brekken et al. 2010). These people have to find these media sources on their own, while in Norway they are more easily accessible. As we saw in the bivariate analyses, the modern media consumers in the United States have a high level of political knowledge, and maybe they more deliberately search for quality news.

Age and gender have the same effects on online news reading as in the bivariate analysis, before introducing the interaction and curvilinear terms. Age has a significant and a negative effect on online news readership in both countries. From table 27 in the appendix, I see that in Norway there is a small negative curvilinear relationship which means that it is the people in the middle of the age span that read the most online news. Also in these models, being a man has a significant positive effect in reading online news, more so in Norway than in the United States. The gender and age interaction term is not significant. When it comes to H2 and that *Younger people are more likely than older people to get their news online*, I can confirm it in the United States, but have to reject it in Norway. In the United States younger people are more likely than older people to get their news online, also when controlling for other effects. In Norway I have to keep the null hypothesis because there is a slight curvilinear relationship. To answer H3, *Online newspapers are a supplement to traditional media among the age groups 30 and older, but not among the younger age groups*, I have to go to the appendix and the alternative regression analysis (table 34, page 78). I find a negative effect of age on online news consumption in Norway, but not in the United States when the interaction term is introduced. This shows that in Norway, men's online news consumption is not as affected by age as women's, the slope is steeper for women. In the United States it is the opposite; people use more online news as they get older, but the men's slope is still the steepest, only in the opposite direction.

In the United States, all the education categories have a significant negative effect on

reading online news compared to the higher education group. In Norway there is no significant difference between the highest education group and the college group, but the other education categories read significantly less online news than the reference group. Political interest has a positive effect in Norway, but not in the United States, and political confidence does not have a significant effect in either country. A very interesting finding is that there is a positive correlation between political knowledge and reading online news in the United States, but in Norway there is no a significant effect. I cannot say which variable that affects the other, but it is probable that they affect each other. However, it is likely that people that are already interested in politics use the internet to acquire more information. As de Waal and Schoenbach (2008) argues, the chance for accidental learning is less and people have to make their own path. This demands more from the consumer, and it is likely that this person is already more knowledgeable. In Norway, we have already seen that the level of education is higher. Most Norwegians might therefore be over the critical level of political knowledge where they have enough references to pin the information to. The general level of internet penetration can indicate that Norwegians overall are technically more capable to navigate online.

4.3.2 The different media consumers and political knowledge

To test and see how our findings from the bivariate analyses hold up when controlling for other effects, I do a regression analysis with political knowledge and the media groups. The analysis where the United States and Norway are analyzed in combination is moved to the appendix. So is model three of the analysis below.

Table 10: Regression analysis for political knowledge and the different media groups, United States and Norway separately

	Model 1		Model 2	
	United States	Norway	United States	Norway
	B		B	
Constant ^a	2.448***	3.059***	.711***	.660**
Media group dummies ^b				
Omnivorous consumers	.744***	.665***	.296**	.258*
Modern consumers	.514*	.000	.294	.393
Traditional consumers	.001	.312*	-.076	.114
Disconnected consumers	-.816**	-.273	-.366	.389
Age			.004	.011***
Gender (man=1, female=0)			.376	.460***
Level of education dummies ^c				
College			-.505***	-.088
High School			-.857***	-.529***
Compulsory education/no high school			-1.235***	-.643***
Political interest			.477***	.635***
Political confidence			.184***	.131**
N	970	965	970	965
R ² adjusted	.056	.032	.311	.310
F change	15.322***	8.968***	40.745***	40.489***

^a Political knowledge

^b Reference category: The others

^c Reference category: Higher education

*) Sig. on .05 level

***) Sig. on .01 level

****) Sig. on .001 level

Both in the United States and in Norway users in the omnivorous consumer group have significant and positive effects on political knowledge compared to the reference group. This is the same as in the bivariate analysis. The other media groups are not significantly different from the reference category when I test for other effects. Therefore I have to reject H9, *Traditional news consumption correlates higher with political knowledge than online news consumption*. This goes for both countries, but we see that traditional consumers in Norway have higher political knowledge than the modern consumers before I include the background variables. One observation that is intuitively very weird is that as I include the background variables in model two in Norway, the disconnected consumers have a positive effect on political knowledge all of a sudden. This is not significant, so we should not dwell on it for long, but shows how diverse this media consumer group is in Norway. It is also in itself surprising that the disconnected consumers are not less knowledgeable than the reference group. One hypothesis here can be that the disconnected do not trust the media, although they follow politics in other channels. Another hypothesis, which was mentioned in the bivariate analysis, can be that they listen to a lot of radio and get their news from there. We see that the

disconnected media group is not a homogeneous group of people that stand outside of society because many of them apparently know quite a bit about politics. I have to reject H8, *The disconnected citizens have a lower level of political knowledge than other people*. These results give an indication that there are not large knowledge gaps in political knowledge in society today. Omnivorous consumers naturally are more knowledgeable, but the other media groups are not possible to distinguish from each other. The gaps that Prior (2007, 2005), Bonfadelli (2002), van Dijk and Hacker (2003), and Delli Carpini and Keeter (2003) should worry about is the gap between these two countries. Americans are not uninformed, but they have a very low level of political knowledge, which can make them as a people, easier to manipulate (Gillmor 2006). The remedy, as we see, is more education. It could at first glance seem as if using online newspapers increase the level of political knowledge in the United States (table nine), however, when we see that the level of political knowledge among Americans is this low, we will have to assume that the causality is the other way around, knowledgeable Americans use online newspapers at a greater extent.

In Norway being a man has a significant effect on political knowledge. In the United States, however, there is no effect of gender on political knowledge. This gives us the opportunity to reject H4, *Men have a higher level of political knowledge than women*, for the United States, but it seems to be true for Norway. I also have to reject H5, *There are smaller differences between the political knowledge of men and women in Norway than in the United States*, because there is a significant difference between the level of political knowledge in Norway, but not in the United States. This is a surprise because there are less stay at home moms in Norway (U.S. Department of Commerce 2010; Kitterød and Rønsen 2011). This was thought to be a reason for differences between the levels of political knowledge of men and women, but is not an explanatory factor here. When it comes to political knowledge, this notion is rejected.

Both in the United States and Norway there is a significant relation between education and political knowledge. In the United States the higher education group knows the most and in Norway the college group has the same level of political knowledge as the higher education group. Political interest and confidence have positive effects on political knowledge in both countries. There is a small significant curvilinear age term in both countries; in Norway this gives an indication of that it is not the oldest that know the most about politics, but someone in the middle. This indicates that there is not a “Dumb Generation” as Bauerlein (2008) argues. In the United States this effect is indistinguishable, so I cannot draw a conclusion. The interaction term between age and man, does not have a significant effect on either country.

Norwegians have a higher level of political knowledge than Americans.

There is a big gap in political knowledge between Norway and the United States, where Norwegians know more than Americans. However, it does not matter where you are from when it comes to the effect of gender on political knowledge.

4.4 Summary of the hypotheses and the findings

Table 11: Summary of the hypotheses

	Norway	United States
Hypothesis 1: <i>Online newspapers are a supplement to traditional media</i>	Reject	Reject
Hypothesis 2: <i>Younger people are more likely than older people to get their news online</i>	Reject	Keep
Hypothesis 3: <i>Online newspapers are a supplement to traditional media among the age groups 30 and older, but not among the younger age groups</i>	Reject	Reject
Hypothesis 4: <i>Men have a higher level of political knowledge than women</i>	Keep	Keep
Hypothesis 5: <i>There are smaller differences between the political knowledge of men and women in Norway than in the United States</i>		Reject
Hypothesis 6: <i>People acquire more political knowledge from printed newspapers than from online newspapers</i>	Reject	Reject
Hypothesis 7: <i>People with a high level of education are less likely to be disconnected than those with a low level of education</i>	Reject	Reject
Hypothesis 8: <i>The disconnected citizens have a lower level of political knowledge than other people</i>	Reject	Keep
Hypothesis 9: <i>Traditional news consumption correlates higher with political knowledge than online news consumption</i>	Reject	Reject

The one hypothesis that I have kept unconditionally is H4, *Men have a higher level of political knowledge than women*. The rest of the hypotheses I have rejected, at least partially. H1, *Online newspapers are a supplement to traditional media*, I had to reject because I did not find many significant results. Only in that online news reading is a substitute to consumption of news on television in Norway. When it comes to the age hypotheses, H2, *Younger people are more likely than older people to get their news online* and H3, *Online newspapers are a supplement to traditional media among the age groups 30 and older, but not among the younger age groups* (it is a substitution), I can confirm H2 one for the United States and reject it for Norway. H3 I have to reject because it is a substitution. H5, *There are smaller differences between the political knowledge of men and women in Norway than in the United States*, I have to reject because indeed it is quite the opposite; there is a significant difference between the level of political knowledge in Norway, but not in the United States. H6, *People acquire more political knowledge from printed newspapers than from online newspapers*, I also have to reject. Also two of the three media user group hypotheses, I have to reject: H7, *People with a high level of education are less likely to be disconnected than those with a low level of education* and H9, *Traditional news consumption correlates higher*

with political knowledge than online news consumption. The last hypothesis, H8, *The disconnected citizens have a lower level of political knowledge than other people* I must reject for Norway, but can keep it for the United States.

To visualize the characteristics of the different media, I present a table. This has to be read as a broad characterization as I have picked out what I find the most interesting, and that some of the characteristics are not statistically significant.

Table 12: Matrix of characteristics of the media consumer groups

<p><u>Omnivorous:</u></p> <ul style="list-style-type: none"> ▪ In Norway he is younger ▪ Male ▪ In Norway he typically has college education, while in the United States he has college or higher education ▪ Well-informed ▪ Politically confident and interested 	<p><u>Traditional:</u></p> <ul style="list-style-type: none"> ▪ Older ▪ Female ▪ Has compulsory education ▪ Little political confidence ▪ In the United States she had more political interest ▪ In Norway she is well-informed about politics, while in the United States she is less informed
<p><u>Modern:</u></p> <ul style="list-style-type: none"> ▪ Younger ▪ In the United States the consumer is male ▪ Little political interest ▪ In Norway the consumer has less political confidence, while in the United States he has more political confidence ▪ Quite well-informed about politics 	<p><u>Disconnected:</u></p> <ul style="list-style-type: none"> ▪ Younger ▪ Little political interest ▪ In Norway the consumer has little political confidence ▪ In the United States the consumer has low political knowledge

One very interesting finding in the media groups is the difference between the modern and the traditional media consumers in the two countries. The modern media consumers in the United States are generally very well-informed. Although I do not find a significant difference between the groups in the final regression analysis, I see that there is a tendency that they are more informed than the reference group. The reason for modern consumers to seem more knowledgeable than the rest in the United States (with the exception of the omnivorous consumers) is that you have to look up international news more carefully to find it. The traditional consumers seem very well informed in Norway, but generally uninformed in the United States. Here the reason can be that there is a lot of news in the main television channels in primetime Norway, but that in the United States you have to turn on the television on more odd hours and look through the newspapers to find international news. The disconnected consumers are very much worth studying because of two factors; firstly because they choose to avoid all news, which results in not knowing what is going on in society, and secondly, because of the lack of characteristics of the disconnected consumer. It would be a lot easier to tackle the problem if we knew what the problem was. In this study I find that not

even education is a safe predictor of being disconnected. This makes it difficult to try to fix the problem of people not being engaged in society. In the omnivorous media consumers are, as suspected, the most politically knowledgeable. This goes for both countries. The omnivorous consumers are more what we look after in an enthusiastic citizen, a high level of political knowledge, confidence, and interest. Now I just have to find out why this person is this way; if it is because of a large consumption of news or if he consumes a lot of news because he is knowledgeable, or if there are other background variables.

From this I find few indications of that online news will revolutionize the way that we consume news and absorb political knowledge. For the near future traditional media and online newspapers will operate side by side, at least in some groups of people. This will likely be the already omnivorous media consumer, meaning especially in the higher education segment and with a lot of political interest, confidence, and knowledge. Being in this group is also an indicator that they can and like to balance different kinds of news sources, which will be a quality that they bring with them in the future, even when the media environment changes. When looking at the penetration of printed newspapers I find that this is much higher in Norway than in the United States, and it will be a more widespread medium for longer there. However, it is declining and when the backbone of traditional media dies, a lot more will be concentrated on the internet. It will be interesting to see how journalism will develop and adapt to a more digital media environment. It is difficult to predict the future, but when it comes to political knowledge, this study also gives some hints. There is difficult to say which direction the causality is, whether the highly informed choose online news or if online news lead to a high level of political knowledge. If more news will be online, people in the future will have to search for news more deliberately. People with a high level of political knowledge will still have the interest and the skills for doing this, but the accidental exposure will be smaller. In Norway, there is not a significant correlation between online news / modern media group and political knowledge, and a great shift towards more online news consumption probably will not have a large effect on the general level of political knowledge. As for the future of the quality of journalism, it is hard to predict from my results. If you choose to look at it from the bright side, then quality journalism will just step over to the digital platform smoothly and the financing and technology will come. However, if you are a pessimist, then the quality newspapers will cease to exist, without any media to take its place as the watchdog of democracy.

If the level of political knowledge in a people is an indicator of a well-enlightened society, then Norway is better off than the United States. However, this is a too swift

conclusion to draw. As is says in the previous research, to be an informed citizen you have to be able to see the information in context. A reason why the level of political knowledge is so low, can be, as Delli Carpini and Keeter (2003) say, that most people tend to be generalists rather than specialists, and that the survey questions were too concrete. This might mean that they still could be able to understand how the political and social spheres are related and how they work. This I have not done here, but knowing factual information is the first step towards being informed. Maybe I am not being fair with the Americans, because local news is a much more important information channel than in Norway (Aalberg et al. 2010; Brekken et al. 2010). They could possibly be able to name their mayor, even if they do not know who Sarkozy is. Still, when I find that as many as 7 percent of Americans cannot answer even one of the knowledge questions, it might be a concern. And informed people are more consistent in their opinions and less likely to be turned into a “dangerous mob” (Gillmor 2006, 6). Delli Carpini and Keeter (2003) are correct, though, the average American is poorly informed, but not uninformed.

Norwegians consume in general more news content than Americans and they have overall a higher level of political knowledge. The latter being a result of more people going online than in the United States is unlikely, but speculating about the underlying factors are difficult. I can probably conclude that internet’s role for promoting democratic citizenship is at best limited, but I cannot ignore the possibility that it will change in the future. What it all comes down to is probably motivation. Both Norwegians and Americans have the tools for acquiring news, but they have to feel a desire to stay updated about politics. I think that it is only so much the industry can do to make news entertaining and sexy without compromising the quality; and the motivation to stay informed has to come from within the people and within the society itself.

5. Conclusion

Introductorily, I argued why political information is so important for democracy; so that people can be “good citizens”. I also argue that the internet is gaining ground in the media terrain, and this could be a good thing because of its easy and often cheap access. The answer to the research question, *How the internet is used as a source to news in a relation to television and newspapers and if the consumption of online news is instead or in addition to traditional media*, is that the truth is somewhere between the extremes. I expected that online newspapers would be a supplement to traditional news media in Norway, because of a “more of everything” news environment. For the United States my expectations were that online newspapers substitute traditional news media. In Norway, people use online news together with watching news on television. In the United States there is a tendency that people use online news instead of watching news on television. This is partly what I expected. As mentioned before, the reason for this is up for speculation. The content difference between the two countries is a plausible explanation; that online news and news on television are more different in Norway and offer the consumers two different alternatives, while in the United States, you get the same type of information both places. There is a tendency in both countries that printed and online newspapers substitutes each other. This is as I expected for the United States, but goes against my expectations for Norway. It seems as if Americans favor one medium, but that Norwegians tend to use more sources of information. I assumed that Norway and the United States would be quite different, because of different democratic and media histories.

For further research it would be very interesting to use a broader political knowledge index. If we also included radio, the results would be even more robust. Also, as mentioned in the discussion of the method, it would be interesting to include different countries. Especially from different media system. A similar study can also be done with newer data, both to determine what it is like today, and to see if there has been a development.

To conclude it all, it is natural to look forward; at the faith of online news and political knowledge. Because that young people use so much online news, I think that this is where the news will be in the future. Many will only use the internet to acquire news, although some will use television and newspapers as supplements. When it comes to whether people will gain as much information as today from the news of the future, it is hard to say. I think that there will be less broadcasting and more niches. However, at least in Norway, where news is important for so many people, there will be certain news that everyone will follow. Many

people still *want* to stay updated, so I think that only the platforms will change.

6. Bibliography

- Aalberg, Toril, and James Curran. 2012. *How media inform democracy: a comparative approach*. London: Routledge.
- Aalberg, Toril, Peter van Aelst, and James Curran. 2010. Media Systems and the Political Information Environment: A Cross-National Comparison. *The International Journal of Press/Politics* 15 (3):255-271.
- Ahlers, Douglas. 2006. News Consumption and the New Electronic Media. *The Harvard International Journal of Press/Politics* 11 (1):29-52.
- Allen, Richard L., and Fausto Izcaray. 1988. Nominal Agenda Diversity in a Media-Rich, Less-Developed Society. *Communication Research* 15 (1):29-50.
- Althaus, Scott L., and David Tewksbury. 2002. Agenda Setting and the “New” News. *Communication Research* 29 (2):180-207.
- Andersen, Johannes, and Niels Nørgaard Kristensen. 2006. Between individualism and community: On media consumption, political interest and the public. *Nordicom Review* 27 (2):69-85.
- Bauerlein, Mark. 2008. *The dumbest generation: how the digital age stupefies young Americans and jeopardizes our future, (or, don't trust anyone under 30)*. New York: Jeremy P. Tarcher/Penguin.
- Berelson, Bernard, Paul F. Lazarsfeld, and William N. McPhee. 1954. *Voting: a study of opinion formation in a presidential campaign*. Chicago: University of Chicago Press.
- Berger, Peter L., and Thomas Luckmann. 1995. *Modernity, pluralism and the crisis of meaning: the orientation of modern man*. Gütersloh: Bertelsmann foundation.
- Blekesaune, Arild, Eiri Elvestad, and Toril Aalberg. 2010. Tuning out the World of News and Current Affairs—An Empirical Study of Europe’s Disconnected Citizens. *European Sociological Review*.
- Blekesaune, Arild, Eiri Elvestad, and Toril Aalberg. 2012. Tuning out the World of News and Current Affairs—An Empirical Study of Europe’s Disconnected Citizens. *European Sociological Review* 28 (1):110-126.
- Bonfadelli, Heinz. 2002. The Internet and Knowledge Gaps. *European Journal of Communication* 17 (1):65-84.
- Brekken, Tove, Kjersti Thorbjørnsrud, and Toril Aalberg. 2010. Media Systems and Political Information Resources: An Empirical Study of Focus and Frames Across Countries and News Media Outlets. In *American Political Science Association Annual Meeting*. Washington, DC.
- Bruns, Axel. 2008. *Blogs, wikipedia, second life, and beyond: from production to produsage*. New York: Peter Lang.
- Coleman, Renita, and Maxwell McCombs. 2007. THE YOUNG AND AGENDA-LESS? EXPLORING AGE-RELATED DIFFERENCES IN AGENDA SETTING ON THE YOUNGEST GENERATION, BABY BOOMERS, AND THE CIVIC GENERATION. *Journalism and Mass Communication Quarterly* 84 (3):495-508.
- Curran, James P. , Sharon Coen, Toril Aalberg, and Shanto Iyengar. 2012. News Content, Media Consumption, and Current Affairs Knowledge. In *How media inform democracy : a comparative approach* edited by T. Aalberg and J. Curran. London: Routledge.
- d’Haenens, Leen, Nicholas Jankowski, and Ard Heuvelman. 2004. News in Online and Print Newspapers: Differences in Reader Consumption and Recall. *New Media & Society* 6 (3):363-382.
- Dalrymple, Kajsa E., and Dietram A. Scheufele. 2007. Finally Informing the Electorate? How the Internet Got People Thinking about Presidential Politics in 2004. *The Harvard International Journal of Press/Politics* 12 (3):96-111.
- de Vreese, Claes H., and Hajo Boomgaarden. 2006. News, Political Knowledge and Participation: The Differential Effects of News Media Exposure on Political Knowledge and Participation. *Acta Politica* 41 (4):317-341.
- de Waal, Ester 2007. Online News: Uses and effects of news websites. Doctoral dissertation, University of Amsterdam, Amsterdam.

- de Waal, Ester, and Klaus Schoenbach. 2008. Presentation style and beyond: How print newspapers and online news expand awareness of public affairs issues. *Mass Communication & Society* 11 (2):161 - 176.
- de Waal, Ester, Klaus Schönbach, and Edmund Lauf. 2005. Online Newspapers: A Substitute or Complement for Print Newspapers and Other Information Channels? *Communications* 30 (1):55-72.
- Delli Carpini, Michael X. , and Scott Keeter. 1992. The Gender Gap In Political Knowledge. *The Public Perspective* 3 (5):23-26.
- Delli Carpini, Michael X., and Scott Keeter. 1993. Measuring Political Knowledge: Putting First Things First. *American Journal of Political Science* 37 (4):1179-1206.
- Delli Carpini, Michael X., and Scott Keeter. 2003. The Internet and an Informed Citizenry. In *The Civic Web: online politics and democratic values*, edited by D. Anderson and M. Cornfield. Lanham, Md. : Rowman & Littlefield.
- Didi, Arvind, and Robert LaRose. 2006. Getting Hooked on News: Uses and Gratifications and the Formation of News Habits Among College Students in an Internet Environment. *Journal of broadcasting & electronic media* 50 (2):193-210.
- Dimitrova, Daniela V., and Jesper Strömbäck. 2005. Mission Accomplished? Framing of the Iraq War in the Elite Newspapers in Sweden and the United States. *Gazette* 67 (5):399-417.
- Downs, Anthony. 1957. *An economic theory of democracy*. New York: Harper & Row.
- Drew, Dan, and David Weaver. 2006. Voter learning in the 2004 presidential election. *Journalism & Mass Communication Quarterly* 83 (1):25-42.
- Eveland, William P. , and Sharon Dunwoody. 2002. An Investigation of Elaboration and Selective Scanning as Mediators of Learning From the Web Versus Print. *Journal of broadcasting & electronic media* 46 (1):36-53.
- Eveland, William P., and Sharon Dunwoody. 2001. User Control and Structural Isomorphism or Disorientation and Cognitive Load? *Communication Research* 28 (1):48-78.
- Eveland, William P., Mihye Seo, and Krisztina Marton. 2002. Learning From the News in Campaign 2000: An Experimental Comparison of TV News, Newspapers, and Online News. *Media Psychology* 4 (4):353-378.
- Fidler, Roger F. 1997. *Mediamorphosis: understanding new media*. Thousand Oaks, Calif.: Pine Forge Press.
- Finnemann, Niels Ole. 2005. *Internettet i mediehistorisk perspektiv*. Frederiksberg: Forlaget Samfundslitteratur.
- Galston, William A. 1991. *Liberal purposes: goods, virtues, and diversity in the liberal state*. Cambridge: Cambridge University Press.
- Gans, Herbert J. 2003. *Democracy and the news*. New York: Oxford University Press.
- Gillmor, Dan. 2006. *We the media: grassroots journalism by the people, for the people*. Beijing: O'Reilly.
- Gitelman, Lisa. 2006. *Always already new: media, history and the data of culture*. Cambridge, Mass.: MIT Press.
- Golding, Peter. 2000. Forthcoming Features: Information and Communications Technologies and the Sociology of the Future. *Sociology* 34 (1):165-184.
- Graber, Doris A. 1984. *Processing the news: how people tame the information tide*. New York: Longman.
- Graber, Doris A. 1996. The 'New' Media and Politics: What Does the Future Hold? *PS: Political Science and Politics* 29 (1):33-36.
- Guo, Zhongshi, and Patricia Moy. 1998. MEDIUM OR MESSAGE? PREDICTING DIMENSIONS OF POLITICAL SOPHISTICATED. *International Journal of Public Opinion Research* 10 (1):25-50.
- Habermas, Jürgen. 1991. *Borgerlig offentlighet: dens fremvekst og forfall : henimot en teori om det borgerlige samfunn*. Oslo: Gyldendal.
- Hagen, I. 1997. Communicating to an Ideal Audience: News and the Notion of the "Informed Citizen". *Political Communication* 14 (4):405-419.
- Hallin, Daniel C., and Paolo Mancini. 2004. *Comparing media systems: three models of media and politics*. Cambridge: Cambridge University Press.

- Høst, Sigurd. 2010. Hvordan blir vi oppdatert? Kontakt med forskjellige nyhetskilder 1994–2009. In *Norsk medieforskerlags' preconference "Journalistikkens samfunnsoppdrag"*.
- Jenkins, Henry. 2006. *Convergence culture: where old and new media collide*. New York: New York University Press.
- Jenssen, Anders Todal. 2009. Does Public Broadcasting Make a Difference? Political Knowledge and Electoral Campaigns on Television. *Scandinavian Political Studies* 32 (3):247-271.
- Johnson, Thomas J., and Barbara K. Kaye. 2003. A Boost or Bust for Democracy? *The International Journal of Press/Politics* 8 (3):9-34.
- Jones, Alex S. 2009. *Losing the news: the uncertain future of the news that feeds democracy*. New York, N.Y.: Oxford University Press.
- Karlsen, Rune. 2010. Online and Undecided: Voters and the Internet in the Contemporary Norwegian Election Campaign. *Scandinavian Political Studies* 33 (1):28-50.
- Katz, Elihu. 2009. The End of Television? *The ANNALS of the American Academy of Political and Social Science* 625 (1):6-18.
- Keen, Andrew. 2007. *The cult of the amateur: how today's Internet is killing our culture*. New York: Doubleday/Currency.
- Kenski, Kate, and Natalie Jomini Stroud. 2006. Connections Between Internet Use and Political Efficacy, Knowledge, and Participation. *Journal of broadcasting & electronic media* 50 (2):173-192.
- Kitterød, Ragni Hege, and Marit Rønsen. 2011. Husmor i likestillingsland: Hvem er hjemmearbeidende i dag? *Samfunnsspeilet* 1 (25):8-20.
- Landman, Todd. 2003. *Issues and methods in comparative politics: an introduction*. London: Routledge.
- Lee, Kwan Min. 2006. Effects of Internet Use on College Students' Political Efficacy. *CyberPsychology & Behavior* 9 (4):415-422.
- Lupia, Arthur, and Tasha S. Philpot. 2005. Views from Inside the Net: How Websites Affect Young Adults' Political Interest. *Journal of Politics* 67 (4):1122-1142.
- Luskin, Robert C. 1990. Explaining political sophistication. *Political Behavior* 12 (4):331-361.
- Margolis, Michael, and David Resnick. 2000. *Politics as usual: the cyberspace "revolution"*. Thousand Oaks, Calif.: Sage.
- Milner, Henry. 2002. *Civic literacy: how informed citizens make democracy work*. Hanover: University Press of New England.
- Mitchelstein, Eugenia, and Pablo J. Boczkowski. 2010. Online news consumption research: An assessment of past work and an agenda for the future. *New Media & Society* 12 (7):1085-1102.
- Moses, Jonathon W., and Torbjørn L. Knutsen. 2007. *Ways of knowing: competing methodologies in social and political research*. Basingstoke: Palgrave Macmillan.
- Negroponte, Nicholas. 1995. *Being digital*. London: Hodder & Stoughton.
- Neuman, W. Russell, Bruce Bimber, and Matthew Hindman. 2011. The Internet and Four Dimensions of Citizenship. In *The Oxford Handbook of American Public Opinion and the Media*, edited by L. R. Jacobs and R. Y. Shapiro. Oxford: Oxford university press.
- Nie, Norman H., Irena Stepanikova, Heili Pals, and Lu Zheng. 2006. What do Americans do on the internet? Report 5/06. Palo Alto: Stanford Institute for the Quantitative Study of Society.
- Nilsson, Åsa. 2005. Tidningsläsandets åldrar och generationer. In *Nypressat. Ett kvartssekel med svenska dagstidningsläsare*, edited by L. Weibull, I. Wadbring and A. Bergström. Göteborg: Göteborgs universitet.
- Nisbet, Matthew C., and Dietram A. Scheufele. 2004. POLITICAL TALK AS A CATALYST FOR ONLINE CITIZENSHIP. *Journalism and Mass Communication Quarterly* 81 (4):877-896.
- Noll, A. Michael. 2007. *The evolution of media*. Lanham, Md.: Rowman & Littlefield.
- Norris, Pippa. 2000. *A virtuous circle: political communications in postindustrial societies*. Cambridge: Cambridge University Press.
- Norris, Pippa. 2001. *Digital divide: civic engagement, information poverty, and the Internet worldwide*. Cambridge: Cambridge University Press.
- Papacharissi, Zizi. 2002. The virtual sphere. *New Media & Society* 4 (1):9-27.

- Parker, Kimberly, and Claudia Deane. 1997. Ten years of the Pew News Interest Index. Presented at the meeting of the American Association for Public Opinion Research.
- Patterson, Thomas E. 2000. Doing Well and Doing Good: How Soft News and Critical Journalism Are Shrinking the News Audience and Weakening Democracy – And What News Outlets Can Do About It. John F. Kennedy School of Government, Harvard University.
- Pew Research Center. 2010. Americans Spending More Time Following the News.
- Pool, Ithiel de Sola. 1983. *Technologies of freedom*. Cambridge, Mass.: Belknap Press.
- Prior, Markus. 2005. News vs. Entertainment: How Increasing Media Choice Widens Gaps in Political Knowledge and Turnout. *American Journal of Political Science* 49 (3):577-592.
- Prior, Markus. 2007. *Post-broadcast democracy: how media choice increases inequality in political involvement and polarizes elections*. New York: Cambridge University Press.
- Ringdal, Kristen. 2007. *Enhhet og mangfold: samfunnsvitenskapelig forskning og kvantitativ metode*. Bergen: Fagbokforl.
- Rosenstiel, Tom, and Amy Mitchell. 2011. The State of the News Media 2011 – An Annual Report on American Journalism. In *Pew Research Center's Project for Excellence in Journalism*.
- Räsänen, Pekka. 2006. INFORMATION SOCIETY FOR ALL? STRUCTURAL CHARACTERISTICS OF INTERNET USE IN 15 EUROPEAN COUNTRIES. *European Societies* 8 (1):59-81.
- Scheufele, Dietram A., and Matthew C. Nisbet. 2002. Being a Citizen Online. *The Harvard International Journal of Press/Politics* 7 (3):55-75.
- Schoenbach, Klaus, Ester de Waal, and Edmund Lauf. 2005. Research Note: Online and Print Newspapers. *European Journal of Communication* 20 (2):245-258.
- Shirky, Clay. 2008. *Here comes everybody: the power of organizing without organizations*. New York: Penguin.
- Sternadori, Miglena M., and Kevin Wise. 2010. Men and women read news differently: The effects of story structure on the cognitive processing of text. *Journal of Media Psychology: Theories, Methods, and Applications; Journal of Media Psychology: Theories, Methods, and Applications* 22 (1):14-25.
- Strabac, Zan, and Toril Aalberg. 2011. Measuring Political Knowledge in Telephone and Web Surveys: A Cross-National Comparison. *Social Science Computer Review* 29 (2):175-192.
- Stroud, Natalie. 2008. Media Use and Political Predispositions: Revisiting the Concept of Selective Exposure. *Political Behavior* 30 (3):341-366.
- Sunstein, Cass R. 2004. Democracy and filtering. *Commun. ACM* 47 (12):57-59.
- Sunstein, Cass R. 2007. *Republic.com 2.0*. Princeton: Princeton University Press.
- Tewksbury, David. 2003. What Do Americans Really Want to Know? Tracking the Behavior of News Readers on the Internet. *Journal of Communication* 53 (4):694-710.
- Tewksbury, David. 2005. The Seeds of Audience Fragmentation: Specialization in the Use of Online News Sites. *Journal of broadcasting & electronic media* 49 (3):332-348.
- Tewksbury, David, Andrew J. Weaver, and Brett D. Maddex. 2001. Accidentally informed: Incidental news exposure on the World Wide Web. *Journalism and Mass Communication Quarterly* 78 (3):533-554.
- U.S. Department of Commerce. 2010. Facts for Features: Mother's Day: May 9, 2010.
- Vaage, Odd Frank. 2010. Norsk mediebarometer 2009.
- van Dijk, Jan, and Kenneth Hacker. 2003. The Digital Divide as a Complex and Dynamic Phenomenon. *The Information Society* 19 (4):315-326.
- Verba, Sidney, Nancy Burns, and Kay Lehman Schlozman. 1997. Knowing and Caring about Politics: Gender and Political Engagement. *The Journal of Politics* 59 (04):1051-1072.
- Wayne, Mike. 2010. *Television news, politics and young people: generation disconnected?* Basingstoke: Palgrave Macmillan.
- Weber, Lori M., Alysha Loumakis, and James Bergman. 2003. Who Participates and Why? *Social Science Computer Review* 21 (1):26-42.
- Xenos, Michael, and Patricia Moy. 2007. Direct and Differential Effects of the Internet on Political and Civic Engagement. *Journal of Communication* 57 (4):704-718.
- Yang, JungAe, and Maria Elizabeth Grabe. 2011. Knowledge acquisition gaps: A comparison of print versus online news sources. *New Media & Society* 13 (8):1211-1227.

Zillmann, Dolf, and Jennings Bryant. 1985. Affect, mood, and emotion as determinants of selective exposure. In *Selective Exposure to Communication*, edited by D. Zillmann and J. Bryant. Hillsdale, NJ: Lawrence Erlbaum Associates.

7. Appendix

7.1 Method

7.1.1 Descriptive statistics tables

Table 13: Descriptive statistics for Norway and the United States

Variable	Operationalization	Frequency in percent	N	Min. value	Max. value	Mean	Standard deviation
Political knowledge	Scale from 0 (0 correct answers) to 5 (5 correct answers)		2000	0	5	3.02	1.50
How often do you read news on internet websites?	Scale from 1 (seldom or never) to 5 (every day)		1995	1	5	2.90	1.73
How often do you read a newspaper?	Scale from 1 (seldom or never) to 5 (every day)		1997	1	5	3.68	1.59
How often do you watch TV news?	Scale from 1 (seldom or never) to 5 (every day)		2000	1	5	4.22	1.20
Education	Dummy		1989	1	4	2.78	.86
	1=	7.5 %					
	2=	27.6 %					
	3=	43.7 %					
	4 ⁵ =	20.7 %					
Gender	Dummy		2000				
	0=woman	49.1 %					
	1=male	50.9 %					
Age continuous	Continuous variable Age in 2009		1982	17	96	53.07	16.62
Age dummy	Dummy		1982				
	0=17-29	9.3 %					
	1=30-96	89.8 %					
Political confidence	Scale from 1 (Low) to 5 (High)		1977	1	5	3.01	1.17
Political interest	Scale from 1 (Low) to 5 (High)		1994	1	5	2.81	.83
Omnivorous consumers	Dummy		1992				
	1=	32.7 %					
	0=	67.0 %					
Modern consumers	Dummy		1992				
	1=	3.6 %					
	0=	96.1 %					
Traditional consumers	Dummy		1992				
	1=	32.5 %					
	0=	67.1 %					
Disconnected consumers	Dummy		1992				
	1=	2.7 %					
	0=	96.9 %					
Other media consumers	Dummy		1992				
	1=	28.2 %					
	0=	71.4 %					

⁵ 1=compulsory education in Norway and level under high school in US, 2= High school level, 3= higher education equal to bachelor degree or started higher education, 4= finished master degree or higher.

Table 14: Descriptive statistics for Norway

Variable	Operationalization	Frequency in percent	N	Min. value	Max. value	Mean	Standard deviation
Political knowledge	Scale from 0 (0 correct answers) to 5 (5 correct answers)		1000	0	5	3.46	1.39
How often do you read news on internet websites?	Scale from 1 (seldom or never) to 5 (every day)		997	1	5	3.13	1.69
How often do you read a newspaper?	Scale from 1 (seldom or never) to 5 (every day)		999	1	5	4.23	1.27
How often do you watch TV news?	Scale from 1 (seldom or never) to 5 (every day)		1000	1	5	4.40	1.08
Education	Dummy		993	1	4	2.67	.91
	1=	9.1					
	2=	35.5					
	3=	33.6					
	4 ⁶ =	21.1					
Gender	Dummy		1000				
	0=woman	50.9 %					
	1=male	49.1 %					
Age	Continuous variable Age in 2009		993	17	88	50.18	15.84
Age dummy	Dummy						
	0=17-29	11.7 %					
	1=30-96	87.6 %					
Political confidence	Scale from 1 (Low) to 5 (High)		985	1	5	3.16	1.04
Political interest	Scale from 1 (Low) to 5 (High)		998	1	4	2.71	.71
Omnivorous consumers	Dummy		996				
	1=	45.7 %					
	0=	53.9 %					
Modern consumers	Dummy		996				
	1=	1.8 %					
	0=	97.8 %					
Traditional consumers	Dummy		996				
	1=	34.9 %					
	0=	64.7 %					
Disconnected consumers	Dummy		996				
	1=	1.4 %					
	0=	98.2 %					
Other media consumers	Dummy		996				
	1=	15.8 %					
	0=	83.8					

⁶ 1=compulsory education in Norway and level under high school in US, 2= High school level, 3= higher education equal to bachelor degree or started higher education, 4= finished master degree or higher.

Table 15: Descriptive statistics for United States

Variable	Operationalization	Frequency in percent	N	Min. value	Max. value	Mean	Standard deviation
Political knowledge	Scale from 0 (0 correct answers) to 5 (5 correct answers)		1000	0	5	2.58	1.48
How often do you read news on internet websites?	Scale from 1 (seldom or never) to 5 (every day)		998	1	5	2.66	1.73
How often do you read a newspaper?	Scale from 1 (seldom or never) to 5 (every day)		998	1	5	3.13	1.69
How often do you watch TV news?	Scale from 1 (seldom or never) to 5 (every day)		1000	1	5	4.01	1.29
Education	Dummy		996	1	4	2.89	0.79
	1=	5.9 %					
	2=	19.6 %					
	3=	53.8 %					
	4 ⁷ =	20.3 %					
Gender	Dummy		1000				
	0=woman	47.3 %					
	1=male	52.7 %					
Age	Continuous variable Age in 2009		989	17	96	55.97	16.88
Age dummy	Dummy		989				
	0=17-29	6.9 %					
	1=30-96	92.0 %					
Political confidence	Scale from 1 (Low) to 5 (High)		992	1	5	2.85	1.26
Political interest	Scale from 1 (Low) to 4 (High)		996	1	4	2.92	.92
Omnivorous consumers	Dummy		996				
	1=	19.6 %					
	0=	80.0 %					
Modern consumers	Dummy		996				
	1=	5.3 %					
	0=	94.3 %					
Traditional consumers	Dummy		996				
	1=	30.1 %					
	0=	69.5 %					
Disconnected consumers	Dummy		996				
	1=	4.0 %					
	0=	95.6 %					
Other media consumers	Dummy		996				
	1=	40.6 %					
	0=	59.0 %					

⁷ 1=compulsory education in Norway and level under high school in US, 2= High school level, 3= higher education equal to bachelor degree or started higher education, 4= finished master degree or higher.

7.1.2 Political knowledge

Before I made the political knowledge scale I did some tests to assure the reliability of it.

The knowledge question that was omitted from my study was “What is Hang Seng?”

Table 16: Percentage of respondents who answered correctly on knowledge questions

Question	Norway	United States	Difference and significance test
What is Hang Seng?	24.4 % (N=1000)	33.6 % (N=1000)	Difference = 9.2 Pearson's $\chi^2 = 20.554$, df = 1, p = 0.000

When making a scale we want the variables included to correlate moderately, .3 - .6 (Ringdal 2007, 333). I test this for all the knowledge variables below. All the variables generally correlate badly, but the variable that stands out as correlation badly with the other variables is Hang Seng.

Table 17: Correlation between knowledge variables

	Sarkozy	Mugabe	Karzai	OPEC	Hang Seng	Hamas
Sarkozy		.413	.330	.222	.153	.404
Mugabe	.413		.307	.190	.134	.295
Karzai	.330	.307		.224	.238	.227
OPEC	.222	.190	.224		.154	.291
Hang Seng	.153	.134	.238	.154		.162
Hamas	.404	.295	.227	.291	.162	

The difference in political knowledge between the two countries differs by which variables I include in the analysis. To examine this further I compare the means and Cronbach's α . The latter we want to be over .6 – .7. I have in the table below excluded the variables that in the analyses above seemed as they would cause trouble. In all but the last index, where I have excluded both Sarkozy and Mugabe, the mean political knowledge is significantly higher in Norway than in the United States. Because the reliability is under .6 in the indexes where only Sarkozy is excluded and also where both Sarkozy and Mugabe are excluded, this option I rule out. Because the index where Hang Seng is excluded has the highest Cronbach's α , I choose to use this in the regression analysis. A principal component analysis with varimax rotation shows that all the variables belong to one underlying dimension.

Descriptive statistics

Table 18: Mean of political knowledge and Cronbach's α

Index	Mean political knowledge		t-test difference in political knowledge	Cronbach's α		
	United States	Norway		United States	Norway	Combined
6 variables	2.916	3.704	t = 10.827, df = 1998, p = .000	.684	.657	.668
5 variables (not Sarkozy)	2.5030	2.9380	t = 7.179, df = 1998, p = .000	.596	.604	.585
5 variables (not Mugabe)	2.6350	3.0730	t = 7.102, df = 1998, p = .000	.593	.652	.612
5 variables (not Hang Seng)	2.5800	3.4600	t = 13.720, df = 1998, p = .000	.663	.669	.674
4 variables (not Sarkozy or Mugabe)	2.2220	2.3070	t = 1.714, df = 1998, p = .087	.546	.520	.518

Table 19: Cronbach's α if variables were excluded

	Cronbach's α
Sarkozy	.585
Mugabe	.612
Karzai	.615
OPEC	.647
Hang Seng	.674
Hamas	.612

7.1.3 Education

The education levels in the United States are:

1. None, or grade 1-8
2. High school incomplete (grades 9-11)
3. High school grad
4. GED
5. Business, technical, or vocational school after high school
6. Some college, no 4-year degree
7. College graduate
8. Post-graduate training or professional schooling after college

The education levels in Norway are:

1. Barneskole/folkeskole
2. Framhaldsskole
3. Ungdomsskole
4. Realskole
5. Yrkesskole/handelsskole
6. Videregående/gymnast
7. Lærerskole/sykepleieskole
8. Påbegynt universitet/høyskole uten eksamen
9. Universitet/høyskole, kortere enn fem år, med eksamen
10. Universitet/høyskole, fem år eller mer, med eksamen

7.2 Results and discussion

7.2.1 Bivariate analyses

Here I present the bivariate analyses of Norway and the United States together

Table 20: Bivariate analysis for Reading online news, Norway and United States together

	Pearson's r	N
Reading newspapers	-.033	1992
Watching TV news	-.101***	1995
Age	-.363***	1977
Gender (man=1, female=0)	.176***	1995
Level of education dummies ^a		
College	.062***	1984
High School	-.101***	1984
Compulsory education/no high school	-.163***	1984
Political interest	.061***	1989
Political confidence	.175***	1972
Political knowledge	.206***	1995
Country (Norway=1, USA=0)	.137***	1995

Dependent variable: Reading online news

^a Reference category: Higher education

*) Sig. on .05 level

**) Sig. on .01 level

***) Sig. on .001 level

Table 21: Bivariate analysis for Political knowledge, United States and Norway combined

	Pearson's r	N
Reading online news	.206***	1995
Reading newspapers	.252***	1997
Watching TV news	.071**	2000
Age	.072***	1982
Gender (man=1, female=0)	.212***	2000
Level of education dummies ^a		
College	.001	1989
High School	-.147***	1989
Compulsory education/no high school	-.130***	1989
Political interest	.386***	1994
Political confidence	.332***	1977
Country (Norway=1, USA=0)	.293***	2000

Dependent variable: Political knowledge

^a Reference category: Higher education

*) Sig. on .05 level

***) Sig. on .01 level

****) Sig. on .001 level

Table 22: Bivariate analysis of omnivorous consumers, United States and Norway combined

	Pearson's r	N
Age	-.135***	1974
Gender (man=1, female=0)	.110***	1992
Level of education dummies ^a		
College	.005	1981
High School	-.065***	1981
Compulsory education/no high school	-.089***	1981
Political interest	.107***	1986
Political confidence	.148***	1969
Political knowledge	.247***	1992
Country (Norway=1, USA=0)	.279***	1992

Dependent variable: Omnivorous media consumers

^a Reference category: Higher education

*) Sig. on .05 level

***) Sig. on .01 level

****) Sig. on .001 level

Table 23: Bivariate analysis of modern consumers, United States and Norway combined

	Pearson's r	N
Age	-.132***	1974
Gender (man=1, female=0)	.080***	1992
Level of education dummies ^a		
College	.037	1981
High School	-.034	1981
Compulsory education/no high school	-.034	1981
Political interest	-.055*	1986
Political confidence	.020	1969
Political knowledge	-.004	1992
Country (Norway=1, USA=0)	-.095***	1992

Dependent variable: Modern media consumers

^a Reference category: Higher education

*) Sig. on .05 level

***) Sig. on .01 level

****) Sig. on .001 level

Table 24: Bivariate analysis of traditional consumers, United States and Norway combined

	Pearson's r	N
Age	.358***	1974
Gender (man=1, female=0)	-.133***	1992
Level of education dummies ^a		
College	-.059**	1981
High School	.084***	1981
Compulsory education/no high school	.079***	1981
Political interest	.027	1986
Political confidence	-.091***	1969
Political knowledge	-.037	1992
Country (Norway=1, USA=0)	-.051*	1992

Dependent variable: Traditional media consumers

^a Reference category: Higher education

*) Sig. on .05 level

***) Sig. on .01 level

****) Sig. on .001 level

Table 25: Bivariate analysis of the disconnected media consumers, United States and Norway combined

	Pearson's r	N
Age	-.085***	1974
Gender (man=1, female=0)	.003	1992
Level of education dummies ^a		
College	-.017	1981
High School	.028	1981
Compulsory education/no high school	.058*	1981
Political interest	-.153***	1986
Political confidence	-.036	1969
Political knowledge	-.126***	1992
Country (Norway=1, USA=0)	-.080***	1992

Dependent variable: Disconnected media consumers

^a Reference category: Higher education

*) Sig. on .05 level

**) Sig. on .01 level

***) Sig. on .001 level

7.2.2 Regression models

Here are the combined regression analyses and the excluded models.

Table 26: Regression analysis for reading online news, the United States and Norway combined

	Model 1	Model 2	Model 3	Model 4
	B	B	B	B
Constant ^a	3.532***	4.823***	4.149***	3.571***
Reading newspapers	-.012	.035	-.003	-.022
Watching TV news	-.141***	.041	.028	.005
Age		-.039***	-.039***	-.008
Gender (man=1, female=0)		.549***	.413***	.037
Level of education dummies ^b				
College		-.345***	-.214*	-.195*
High School		-.796***	-.577***	-.591***
Compulsory education/no high school		-1.332***	-1.038***	-1.040***
Political interest			.042	.081
Political confidence			.068*	.063
Political knowledge			.162***	.120***
Age ²				.000**
Age x Man				.005
Country (Norway=1, USA=0)				.076
Norway x Man				.308*
N	1936	1936	1936	1936
R ² adjusted	.009	.204	.226	.233
F change	10.248***	71.942***	57.628***	43.070***

^a Reading online news

^b Reference category: Higher education

*) Sig. on .05 level

**) Sig. on .01 level

***) Sig. on .001 level

Table 27: Regression analysis for reading online news, the United States and Norway separately, model 4

	Model 4	
	United States	Norway
	B	
Constant ^a	3.691***	3.114***
Reading newspapers	-.013	-.084*
Watching TV news	-.074	.135**
Age	-.003	.007
Gender (man=1, female=0)	.084	.399
Level of education dummies ^b		
College	-.375**	-.038
High School	-.961***	-.370**
Compulsory education/no high school	-1.378***	-.771***
Political interest	.020	.161*
Political confidence	.076	.039
Political knowledge	.162***	.057
Age ²	.000	-.001**
Age x Man	.003	.005
N	970	965
R ² adjusted	.235	.231
F change	25.810***	25.209***

^a Reading online news

^b Reference category: Higher education

*) Sig. on .05 level

**) Sig. on .01 level

***) Sig. on .001 level

Table 28: Regression analysis for political knowledge and the different media groups, Norway and the United States combined

	Model 1	Model 2	Model 3	Model 4
	B	B	B	B
Constant ^a	2.619***	.776***	.174	-1.173***
Media group dummies ^b				
Omnivorous consumers	.943***	.679***	.248**	.228**
Modern consumers	.367*	.277	.356*	.369*
Traditional consumers	.324***	.324***	.007	.034
Disconnected consumers	-.677**	-.250	-.131	-.100
Age		.002	.008***	.064***
Gender (man=1, female=0)		.363***	.396***	.438*
Level of education dummies ^c				
College		-.398***	-.303***	-.293***
High School		-.544***	-.692***	-.650***
Compulsory education/no high school		-.716***	-.876***	-.812***
Political interest		.459***	.539***	.534***
Political confidence		.244***	.174***	.168***
Country (Norway=1, USA=0)			.994***	.976***
Norway x Man			.050	.046
Age ²				-.001***
Age x Man				.000
N	1936	1936	1936	1936
R ² adjusted	.076	.277	.363	.375
F change	40.764***	68.367***	85.928***	78.380***

^a Political knowledge

^b Reference category: Other

^c Reference category: Higher education

*) Sig. on .05 level

***) Sig. on .01 level

***) Sig. on .001 level

Table 29: Regression analysis for political knowledge and the different media groups, Norway and the United States separately, model 3

	Model 3	
	United States	Norway
	B	
Constant ^a	-.499	-.545
Media group dummies ^b		
Omnivorous consumers	.299**	.198
Modern consumers	.306	.455
Traditional consumers	-.029	.094
Disconnected consumers	-.318	.406
Age	.052***	.065***
Gender (man=1, female=0)	.218	.672**
Level of education dummies ^c		
College	-.480***	-.088
High School	-.777***	-.531***
Compulsory education/no high school	-1.133***	-.602***
Political interest	.480***	.619***
Political confidence	.186***	.126**
Age ²	.000***	-.001***
Age x Man	.003	-.004
N	970	965
R ² adjusted	.320	.320
F change	36.118***	35.905***

^a Political knowledge

^b Reference category: Other

^c Reference category: Higher education

*) Sig. on .05 level

***) Sig. on .01 level

****) Sig. on .001 level

7.2.3 Alternative regression analyses

7.2.3.1 *Political knowledge*

Table 30: Alternative regression analysis for political knowledge

	Model 1	
	United States	Norway
	B	
Constant ^a	.368	.563*
Reading online news	.112***	.044
Reading newspapers	.060*	.038
Watching TV news	-.053	-.010
Age	.006*	.011***
Gender (man=1, female=0)	.345***	.453***
Level of education dummies ^a		
College	-.464***	-.074
High School	-.782***	-.510***
Compulsory education/no high school	-1.071***	-.611***
Political interest	.484***	.633***
Political confidence	.174***	.128**
N	970	965
R ² adjusted	.319	.309
F change	46.418***	44.095***

7.2.3.2 Media groups

Table 31: Alternative regression analysis for political knowledge and the different media groups, Norway and the United States combined

	Model 1	Model 2	Model 3	Model 4
	B	B	B	B
Constant ^a	2.822***	.985***	.213	-1.162***
Media group dummies ^b				
Omnivorous consumers	.844***	.556***	.214**	.203**
Modern consumers	.451*	.255	.506**	.515**
Traditional consumers	.199*	.227**	-.018	.023
Disconnected consumers	-.880***	-.416*	-.165	-.132
Age		.001	.007***	.065***
Gender (man=1, female=0)		.371***	.397***	.449*
Level of education dummies ^c				
College		-.425***	-.306***	-.296***
High School		-.557***	-.701***	-.656***
Compulsory education/no high school		-.775***	-.905***	-.837***
Political interest		.461***	.541***	.535***
Political confidence		.250***	.173***	.167***
Country (Norway=1, USA=0)			1.026***	1.002***
Norway x Man			.054	.050
Age ²				-.001***
Age x Man				-.001
N	1936	1936	1936	1936
R ² adjusted	.058	.265	.363	.375
F change	30.580***	64.595***	85.824***	78.463***

^a Political knowledge

^b Reference category: Other

^c Reference category: Higher education

*) Sig. on .05 level

**) Sig. on .01 level

***) Sig. on .001 level

Table 32: Alternative regression analysis for political knowledge and the different media groups, Norway and the United States separately

	Model 1		Model 2		Model 3	
	United States	Norway	United States	Norway	United States	Norway
	B		B		B	
Constant ^a	2.493***	3.299***	.772**	.748**	-.525	-.499
Media group dummies ^b						
Omnivorous consumers	.793***	.520***	.302*	.169	.312*	.131
Modern consumers	.781**	-.027	.482*	.364	.494*	.481
Traditional consumers	.041	.106	-.040	-.017	.027	-.004
Disconnected consumers	-.860***	-.514	-.373	.277	-.327	.320
Age			.004	.011***	.055***	.067***
Gender (man=1, female=0)			.378***	.454***	.270	.670**
Level of education dummies ^c						
College			-.521***	-.087	-.496***	-.086
High School			-.888***	-.528***	-.806***	-.529***
Compulsory education/no high school			-1.278***	-.647***	-	-.604***
					1.169***	
Political interest			.473***	.643***	.475***	.623***
Political confidence			.184***	.129**	.185***	.124**
Age ²					.000***	-.001***
Age x Man					.002***	-.004
N	970	965	970	965	970	965
R ² adjusted	.050	.024	.310	.309	.320	.319
F change	13.794***	6.936***	40.660***	40.238***	36.160***	35.790***

^a Political knowledge

^b Reference category: The others

^c Reference category: Higher education

*) Sig. on .05 level

***) Sig. on .01 level

****) Sig. on .001 level

7.2.3.3 Dummy age variable

Table 33: Regression analysis for reading online news, the United States and Norway combined

	Model 1	Model 2	Model 3	Model 4
	B	B	B	B
Constant ^a	3.532***	4.152***	3.656***	2.983***
Watching TV news	-.141***	-.057	-.054	-.043
Reading newspapers	-.012	-.020	-.059*	-.081**
Age (30-96=1, 17-29=0)		-.801***	-.825***	-.258
Gender (man=1, female=0)		.528***	.387***	1.946***
Level of education dummies ^b				
College		-.348***	-.224*	-.223*
High School		-.811***	-.627***	-.766***
Compulsory education/no high school		-1.504***	-1.259***	-1.304***
Political interest			-.107*	.003
Political confidence			.112**	.055
Political knowledge			.188***	.122***
Age x Man				-.028***
Country (Norway=1, USA=0)				.501***
Norway x Man				.012
N	1936	1936	1936	1936
R ² adjusted	.009	.099	.127	.173
F change	10.248***	31.420***	29.232***	32.212***

^a Reading online news

^b Reference category: Higher education

*) Sig. on .05 level

***) Sig. on .01 level

***) Sig. on .001 level

Table 34: Alternative regression analysis for reading online news, the United States and Norway separately

	Model 1		Model 2		Model 3		Model 4	
	United States	Norway	United States	Norway	United States	Norway	United States	Norway
	B		B		B		B	
Constant ^a	3.726***	3.891***	4.386***	4.201***	3.778***	3.874***	3.069***	3.272***
Reading newspapers	-.029	-.164***	-.085**	-.136**	-.097**	-.145**	-.070*	-.117**
Watching TV news	-.240***	-.018	-.155***	.050	-.142**	.042	-.107*	.076
Age (30-96=1, 17-29=0)			-.401	-.808***	-.442*	-.860***	.103	-.446*
Gender (man=1, female=0)			.453***	.627***	.313**	.571***	1.734***	2.268***
Level of education dummies ^b								
College			-.541***	-.058	-.385**	-.032	-.412**	-.050
High School			-1.399***	-.545***	-1.130***	-.473**	-1.139***	-.526***
Compulsory education/no high school			-2.050***	-1.224***	-1.686***	-1.131***	-1.615***	-1.069***
Political interest					-.070	.072	-.056	.094
Political confidence					.108*	.034	.079	.008
Political knowledge					.170***	.038	.173***	.041
Age x Man							-.025***	-.033***
N	970	965	970	965	970	965	970	965
R ² adjusted	.033	.014	.150	.111	.172	.112	.195	.149
F change	17.410***	7.904***	25.481***	18.299***	21.122***	13.151***	22.360***	16.381***

^a Reading online news

^b Reference category: Higher education

*) Sig. on .05 level

**) Sig. on .01 level

***) Sig. on .001 level

I see in the combined analysis that age has a strong negative effect on reading online news, which means that those under 30 read far more online news than the older group. When looking at the separated analyses, a more complex picture appears. In model two and three, there is a strong positive correlation between reading online news and age, which is a little surprising compared to what I have concluded before. In the United States, there is no significant effect in model two, but in model three I find a negative effect of age on online news reading. In the last model, there is no effect of age on reading online news in the United States, but the interaction term is significant and negative. This means that if you are a man, you read less online news as change age group compared to women. Because there are only four alternatives in this interaction term, this effect is very small. In Norway, the age has

suddenly a negative effect on reading online news when I include the interaction term. There is also here a small negative effect of the interaction term.

