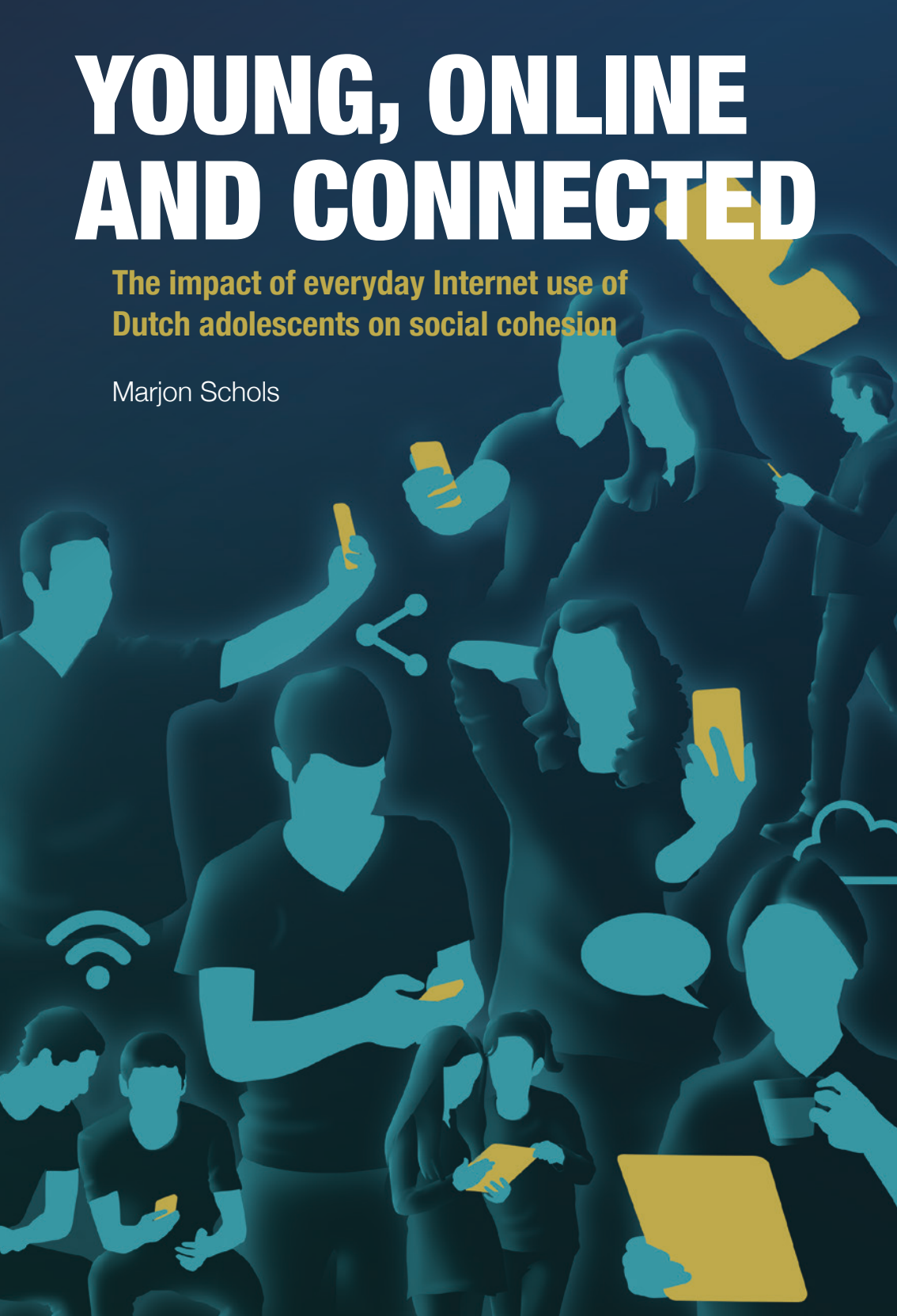
YOUNG, ONLINE AND CONNECTED

The impact of everyday Internet use of Dutch adolescents on social cohesion

Marjon Schols



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Preface (in Dutch)

Het schrijven van dit proefschrift zou niet gelukt zijn zonder de steun van familie, vrienden en collega's. Graag spreek ik hier dan ook mijn dank uit naar iedereen die direct of indirect een bijdrage heeft geleverd. Een aantal mensen wil ik graag in het bijzonder noemen.

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Ik heb je de afgelopen jaren bewust niets laten lezen. Nu het af is, ben ik toch wel benieuwd wat je er van vindt. Alhoewel, zeg het maar niet als je het niets vindt ;-)

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“My son (13 years old) has a project week at school. The theme is ‘connection’, as mentioned in the letter: ‘How to make a connection with others and interact positively with yourself and with others’. I think it is a very useful theme.”

“My son takes the linocut and printing technique workshop, and has to make his own design, which is then printed with a press.
When he comes home, I ask him how the workshop was [‘fun’] and whether his design had to be about the theme ‘connection’ [‘yes’].
‘What did you make?’, I ask him enthusiastically. He shrugs his shoulders: ‘The Wi-Fi logo’.”

(NRC [Dutch daily newspaper], ikje, 8 May 2014)

CHAPTER 1

Introduction

1.1 Adolescents' use of the Internet and social cohesion

Only introduced to the public at large in the mid-1990s, the Internet is currently a major part of our everyday lives. Whether in our work, keeping up to date with recent news, contacting friends, or entertaining ourselves during lost moments while commuting, we all use technologies connected to the Internet. Its ubiquity is only really acknowledged when we forget or lose our tablets and Smartphones and are afraid of missing out on group conversations on various forms of social media. This is especially evident for young people, who have grown up with the latest technologies and use them to stay connected to peers and family.

Although Internet use has many affordances, the current social debate on its usage among adolescents is dominated by talk of the negative consequences on offline social networks, society, and adolescents themselves. In her annual speech in 2009, the then Queen Beatrix of the Netherlands expressed her concerns about the growing use of the Internet, increasing individualism and a decreasing sense of community:

"Virtual connections do not fill the emptiness; in contrast, it increases distances. […] The modern technological possibilities seem to bring individuals closer, but they stay at a 'safe' distance, hiding behind screens. We can communicate without actually appearing, without being seen, anonymously. Expressing emotions in a thoughtlessly and impudent matter has become easy."[1)]

1) http://www.koninklijkhuis.nl/nieuws/toespraken/2009/december/kersttoespraak-2009/. Translated by the author. Original text: "Met virtuele ontmoetingen is die leegte niet te vullen; integendeel, afstanden worden juist vergroot. […]De moderne technische mogelijkheden lijken mensen wel dichter bij elkaar te brengen maar ze blijven op 'veilige' afstand, schuilgaand achter hun schermen. Wij kunnen nu spreken zonder te voorschijn te komen, zonder zelf gezien te worden, anoniem. Domweg, grofweg emoties uiten is makkelijk geworden."

Similar views have been expressed by researchers and cultural critics in the United States. Sherry Turkle (2011), for example, has warned of a rise in loneliness and isolation, while Nicholas Carr (2010) regards the shortness of attention spans as the result of prolonged Internet use. In Germany, Manfred Spitzer (2012/2013) argues that using the Internet damages the brain, making us less intelligent. Yet, open discussions about the pros and cons of Internet use are impaired, because most of the recent societal debates about its impact on adolescents have arisen as a result of incidents like teen suicides after online bullying. As a consequence, these discussions are predominantly directed at the many risks these young people encounter online.[2)]

The presumed negative effects dominate popular more than academic discourse. Nevertheless, the majority of studies focus on the potential threats of Internet use, with less attention paid to positive outcomes (Jansz, Slot, Tol & Verstraeten, 2015). Although the negative incidents and effects alluded to above are significant and enduring for those who experience them, they have an impact on a relatively small number of people (cf. Livingstone & Haddon, 2009). Indeed, without totally disregarding these disastrous outcomes, it has to be noted that they do not reflect the everyday Internet experiences of adolescents. In fact, most of these young people use the Internet to communicate with friends, share their thoughts online, and look for information for school projects. Their online communications thus reduce loneliness, promote self-disclosure and the forming of social networks, and contribute to their education (Baym, 2010; Ito et al., 2010). Yet, these positive effects receive much less attention in both popular debates and academic discourse. This dissertation therefore aims to address this imbalance by scrutinizing the consequences of everyday Internet use by adolescents by empirically investigating the affordances thereof with respect to the social relationships and participation in society of this group.

2) http://nieuws.thepostonline.nl/2014/03/14/meisje-12-pleegt-zelfmoord-na-jarenlange-pesterijen/. http://www.rtlnieuws.nl/editienl/tiener-pleegt-zelfmoord-na-pesterijen-op-facebook. http://nos.nl/op3/artikel/538089-boycot-social-mediasite-na-zelfmoord.html.

In the early days of the Internet, these positive and negative consequences of Internet use were contrasting perspectives in the scientific debate. Those seeing limitless opportunities predicted the enthusiastic establishment of online communities, a reduction in society's inequalities due to the lower costs of online participation, and educational and learning effects. It was even predicted that the new generation would distinguish themselves from previous ones; by overthrowing traditional power structures and hierarchies, young people would be "liberated" from adult control, and would develop their own cultures and communities facilitated by the Internet (Katz, 1996; Tapscott, 1998). Those warning of the downsides argued that the Internet's anti-social nature would increase harmful behaviour and isolation and have a negative impact on family cohesion and social relationships (Kraut et al., 1998; Stoll, 1995). What is more, it was also predicted that differences in access and use would promote online inequalities, lead to the exclusion of certain groups, and result in a fragmented society (see Norris, 2001).

Like the scientific debates after the introduction of the telegraph, radio and television, these perspectives about Internet use became less polarized over time. From the early 2000s onwards, empirical studies began to discard several of these presumed negative and positive effects. Furthermore, Internet use was placed in the broader context of trends in societies, which showed that, for instance, the fall in visiting friends and relatives had started in the 1970s, signifying a broader trend of individualization (Cloïn, 2013). Of course, this is not to say that technology does not have an impact; indeed, it may have accelerated some of these broader trends and processes in society.

In this project, the everyday Internet use of adolescents is investigated in relation to their social networks and participation in society. This social cohesion and Internet use are investigated using large-scale, representative data, which allows us to draw conclusions about Dutch adolescents. This dissertation thus takes a step back from the increasingly niche-focused and specialist academic studies on this topic, which Lievrouw and Livingstone (2006) described as the "balkanization of new media studies" as they observed the rise in separate academic segments on

related topics that were not being linked together. In addition, scholars are increasingly investigating small groups and often use non-representative samples. Although these studies provide insight into the use or benefits of the Internet under certain circumstances, or concerning specific groups, their findings cannot be easily generalized to a wider population (cf. Lee & Chae, 2007; Quintelier & Theocharis, 2013; Van Uden-Kraan, Drossaert, Taal, Seydel & Van de Laar, 2009).

In the current investigation of how Internet use and social cohesion are related, individual characteristics and resources, as well as the context, have been taken into account, because these factors influence both how adolescents use the Internet and social outcomes. Previous studies have, for instance, shown that extraverts are more likely to participate in online social activities, and individuals from higher socioeconomic levels take part more in both online and offline civic and political events (Brady, Verba & Schlozman, 1995; Correa, Hinsley & Gil de Zúñiga, 2010; Gil de Zúñiga & Valenzuela, 2010; Quintelier & Theocharis, 2013). Furthermore, Internet use by adolescents differs with respect to both their opportunities to access the Internet, which are partly determined by the number of devices available to a family, and between adolescents with good digital skills and those whose skills are less well developed (Hargittai, 2010). Consequently, both social outcomes and differences in Internet use depend on individual characteristics and resources, and these issues should not be neglected.

Adolescents are an interesting group to investigate, because they have grown up in a media saturated world and started using new communication technologies at a young age. This has led some scholars and opinion formers to assert that these young people are “digital natives” and part of the “net generation”, contrasting them to previous generations of “digital immigrants” (Prensky, 2001a, 2001b; Tapscott, 1998). Even though many studies have failed to support this clear demarcation between generations (cf. Bennet, Maton & Kervin, 2008; Helsper & Eynon, 2010), adolescents are still looked upon differently by older people because of their extensive use of the Internet, and because they are regarded as being digitally savvy (boyd, 2014; Ito et al., 2010). In addition, this group does not seem to participate much in civic and political activities, instead focusing on their

own youth culture and social networks (see boyd, 2014; Zukin, Keeter, Adnolina, Jenkins & Delli Carpini, 2006). New online initiatives have, however, been regarded as opportunities to increase this group's political and civic engagement and participation, and there are indications that some are actually being successful (cf. Neys & Jansz, 2010).

This dissertation examines the Internet use and social cohesion of adolescents in the Netherlands, which experienced rapid Internet adoption and has had almost complete Internet saturation for some time. This means that almost all of the country's adolescents were connected to the Internet at the time the studies conducted for this research were carried out (CBS, 2013). This in contrast to the United States, which is where most of the research on Internet use has been performed, but is also where there is much lower Internet penetration (United States Census Bureau, 2014). Against the background of wide and easy Internet access in the Netherlands, it is important to focus on the group that uses the Internet most extensively, namely adolescents. The overall aim of the research discussed in this dissertation is to achieve more profound insight into the ordinary, everyday Internet use of Dutch adolescents and investigate how these online practices are related to social cohesion. The empirical data utilized have been obtained from four large-scale survey studies on the Internet use of Dutch adolescents. Each study highlights a different aspect of social cohesion, painting an overall picture of how adolescent Internet use may contribute to general social cohesion in the Netherlands.

The main concepts and theories are presented and discussed in this introductory chapter, providing the context for this dissertation's four different empirical studies. As this work touches on many different fields in the social sciences, only the most relevant concepts and theories are discussed. More specific explanations for the differences in social cohesion, and how they are related to adolescent Internet use, are addressed in each of the following chapters.

1.2 Social cohesion and Internet use

Questions on how groups are formed, how societies fit together and to what extent modernity threatens social cohesion have been prominent in sociological research since industrialization. Discussions about the definition of social cohesion have gone on for just as long. As the goal of this dissertation is not to settle this debate, an authoritative, contemporary definition has been chosen and will be explained in the following section. This definition presents six dimensions of social cohesion, and after a clarification of what Internet use means in this dissertation, these dimensions are discussed in relation to Internet research. From this overview, it follows that investigating how adolescent Internet use is related to social cohesion means that the dimensions that are most relevant are: social networks and social capital, social inclusion/exclusion and participation. These three dimensions are further investigated in the empirical chapters of this research.

1.2.1 The concept of social cohesion

The definitions of social cohesion vary and are still a topic of debate. Due to the diversity in these definitions, it is sometimes even described as a quasi-concept (Bernard, 1999; Chan, To & Chan, 2006). The dominant definition describes the concept as “sticking together”, the way groups “hang together” or the social glue in societies and groups (cf. Kearns & Forrest, 2000). This coherence refers to ties between individuals, meaning that social cohesion is a characteristic of groups or societies.

This definition of social cohesion is framed positively in this dissertation, which is in contrast to how the concept is often utilized. Indeed, especially in terms of policy, it is frequently used to either signal a lack of coherence in society or indicate improvements in policy fields that suffer from a lack of cohesion (Chan et al., 2006). Furthermore, although it is often suggested to be the case, social cohesion is not inherently good or an ascending scale; in fact, too much cohesion within groups leads to a fragmented society consisting of separate, tightly-bonded groups with few meaningful interactions between them (Chan et al., 2006; Schuyt, 2006).

Social cohesion consists of multiple dimensions that all contribute to the "sticking or hanging together" of groups and societies. Like its overall definition, there is no agreement among scholars about the precise dimensions of the concept. However, what all of the definitions mention are the existence of shared values, norms and identities, the requirement for a certain level of participation by group members, and a distinction between in-group and out-group (Bernard, 1999; Forrest & Kearns, 2001; Friedkin, 2004; Jenson, 1998; Kearns & Forrest, 2000; Pahl, 1999). Following these definitions, social cohesion is defined as having six interrelated dimensions.

Firstly, groups consist of individuals who are socially connected (*social networks and social capital*). These social networks are composed of both strong ties, such as family members and friends, and weak ties like colleagues and neighbours (Granovetter, 1973, 1983). Individuals can derive resources such as information, support, trust and collaboration from their social networks. Access to these resources in social networks or structures, which is often described as social capital, facilitates interpersonal relationships (Bourdieu, 1979/1989; Coleman, 1988; Putnam, 2000). At the society level, social networks and social capital make coordination and cooperation possible, fostering the functioning of societies (Putnam, 1993, 2000).

Secondly, for groups to exist, individuals need to recognize themselves as members of a group by identifying with others ((social) *identity*). A shared culture, for instance, leads to similar experiences and promotes the feeling of belonging to a particular group (Kearns & Forrest, 2000). As stated by social identity theory, individuals categorize themselves into certain groups by comparing aspects such as behaviour, attitudes, beliefs, values, affections, experiences and speech styles (Ling, 2008; Stets & Burke, 2000).

Thirdly, and related to a shared identity, members have to agree on and support certain values and norms for groups to become, and stay, cohesive (*shared norms and values*). These values and norms subscribe, for instance, to moral principles and "appropriate" behaviour that is accepted by group members and promotes the interests of the group (Forrest &

Kearns, 2001; Kearns & Forrest, 2000). Important structures for the transmission of values and norms are socializing institutions such as families, schools and media (Arnett, 1995; Maccoby, 1992; McLeod, 2000).

Fourthly, to have a coherent group to which individuals feel they belong and with which they identify, it should be clear who belongs (in-group) and, perhaps even more important, who does not (out-group) (*social inclusion/exclusion*) (Jenson, 1998). Some individuals are at greater risk of social exclusion, because they lack certain resources or are excluded on account of their origin.

Fifthly, for a group to endure, it is important that its members participate in order to maintain the group (*participation*) (Jenson, 1998). This participation comprises, for instance, preserving social connections, taking part in social activities, providing support to others, and political and civic participation (Klofstad, 2011).

Finally, groups require a certain structure to function efficiently (*social order and control*). Conflicts are reduced when the social order or group structure is clear, and when there are no threats to it. Furthermore, neighbourhoods are more coherent when there is some informal social control and tolerance of differences (Forrest & Kearns, 2001; Kearns & Forrest, 2000).

Now, however, before the different dimensions are related to Internet use by adolescents, it is necessary to explain how the Internet is defined in this dissertation.

1.2.2 Internet use by adolescents

Internet studies are rather new and have developed quickly. To signify this rapid development, Wellman (2004) distinguished three “ages” of Internet studies. From utopian and dystopian perspectives in the early to mid-1990s, which predominantly focused on developing applications, the studies became more scientific in the second age of Internet research in the late 1990s and early 2000s. These early empirical studies predominantly examined the proliferation of the network, a rise in opportunities for access, and the (major) differences in access and use between nations,

socioeconomic groups and genders. The third age, which started around 2002 according to Wellman (2004), is demarcated by the increased appearance of theoretically-driven research.

Although many studies in the social sciences assume that the reader knows what the Internet is (cf. Kraut et al., 1998, 2002; McKenna, Green & Gleason, 2002; Vergeer & Pelzer, 2009), it is nevertheless important to clarify the concept. In this dissertation, the Internet is understood as a technical structure that affords the ability to communicate with others, consume and produce online content, and participate in online activities. These activities range from posting tweets and content on Facebook to searching for information for school projects and buying consumption goods and producing clips for YouTube. The research in this dissertation is not platform or case-based, but instead investigated the Internet use of adolescents in general and the different types of online activity that they engage in. So, rather than investigating the influence of platforms like Facebook or Twitter, what is assessed is the extent to which their online communication with peers is related to social cohesion. This method is more inclusive than platform- or case-based research when it comes to the different activities that adolescents undertake online, thus allowing the formulation of more general conclusions about the outcomes of adolescents' everyday Internet use.

Adolescents particularly use the Internet to communicate with others. In fact, a time-diary study among a representative group of Dutch people over the age of 13 indicated that adolescents on average spend more time on mediated communication than older age groups (see Table 1). Although the method of data collection reduces the number of participants in the different online activities, the results are useful for signifying the differences between adolescents and older individuals when it comes to mediated communication (Sonck & De Haan, 2015).[3] It appears from

3) The data was collected by using an online time diary. Respondents were asked to report their activities in 10 minute-time slots for four to seven days of one week (see Sonck & Pennekamp, 2014). This method resulted in the reporting of activities that lasted for 10 minutes or longer, meaning that sending messages or checking social media for only five minutes was not covered. Consequently, the data are likely to underestimate the percentage of respondents participating in the activities and the time spent on them.

the results that adolescents spend less time on calling and emailing than older age groups, but those who do engage in these activities spend more time doing so than their older counterparts. Sending messages, including via sms and online tools such as WhatsApp, and social media are adolescents' preferred means of mediated communication. Thirty per cent of Dutch adolescents spend at least 10 minutes per day on sending messages, while 34% spend at least the same time daily on social media. While social media is also popular among 20-34 year olds (36% use it for at least 10 minutes a day), they on average spend less time on this platform than adolescents (1 hour and 34 minutes per day compared to 2 hours). Sending messages is thus clearly an adolescent activity; indeed, the time-diary study referred to shows that those who spend time on texting, do this on average almost 4.5 hours a day, which is much longer than is the case for older age groups.

It can therefore be concluded from the time-diary study that adolescents spend a large part of their day communicating with others, especially through online social media. However, although they spend a lot of time maintaining and enhancing their social network, questions arise as to whether these online communications actually advance social cohesion among this group's social networks, and whether they also use the Internet to enhance their broader participation in society.

TABLE 1.1 Mediated communication by age (in percentages of Dutch people over the age of 13, and the average time spent by participants on an average day in hours and minutes).

	CALLING		EMAILING		SENDING MESSAGES		SOCIAL MEDIA	
Age	**%[a]**	**Time[b]**	**%**	**Time**	**%**	**Time**	**%**	**Time**
13-19	7	1:11	8	1:30	30	4:24	34	2:00
20-34	14	0:57	23	1:11	21	1:49	36	1:34
35-49	16	0:54	29	1:19	12	1:14	27	1:17
50-64	17	0:52	35	1:06	8	1:10	14	1:29
65 and older	21	0:39	23	0:48	3	0:32	7	1:06
Total	**16**	**0:51**	**26**	**1:09**	**13**	**2:07**	**23**	**1:30**

[a] The percentage of Dutch individuals over 13 years old who spend at least 10 minutes in an average day on calling.

[b] The average time of Dutch individuals over 13 years old who spend at least 10 minutes in an average day on calling.

Source: Sonck & De Haan (2015)

1.2.3. Dimensions of social cohesion and Internet use

Social cohesion is a complex concept that is rarely investigated in a single study. In research on Internet use, scholars predominantly focus on a single dimension of social cohesion, with very few discussing how their findings relate to the broader concept (cf. Petrovčič, 2008). Using just one study to investigate social cohesion is likely to reduce the multidimensional concept to a single dimension. A dissertation combining several empirical studies thus provides an excellent opportunity to thoroughly investigate how Internet use relates to the many dimensions of social cohesion.

Each of the six social cohesion dimensions is important to investigate in relation to Internet use. However, when examining how adolescents use the Internet on a daily basis, some of these dimensions appear to be more fascinating than others. From the perspective of affordances, adolescent Internet use is assumed to provide certain opportunities and impose various constraints. Affordances "...are functional and relational aspects which frame, while not determining, the possibilities for agentic action in relation to an object." (Hutchby, 2001: 444). As a consequence, the Internet and its context have several properties in relation to adoles-

cent users that frame the opportunities for and constraints on this group's Internet use and online behaviour (Bloomfield, Latham & Vurdubakis, 2010; Gibson, 1979; Hsieh, 2012; Hutchby, 2001; Jansz, 2010).[4] These affordances are, for instance, the possibility of always being connected, asynchronous communication, wireless access, globalized connectivity and a rich source of information (Wellman et al., 2003; Baym, 2010). Many of these affordances facilitate adolescents' communication with members of their social networks, regardless of time and location. This is reflected in the everyday Internet use of adolescents, who predominantly utilize the Internet to engage with social networks (Reich, Subrahmanyam & Espinoza, 2012). From the perspectives of parents, teachers and even politicians, the valuable affordances of the Internet for adolescents are the rich source of information it provides and the opportunities on offer regarding the participation of these youngsters in society (cf. boyd, 2014). These differences in the importance of affordances between adolescents, educators and politicians lead to a contradiction between the expectations or hopes of parents, teachers and politicians and the actual online activities of adolescents. To investigate this interesting tension, the topics examined in the four empirical studies conducted for this dissertation are as follows: the dimensions related to adolescents' social networks, their inclusion in these social networks, and their participation in society.

All six of these dimensions of social cohesion have been investigated in several Internet-use studies. Since many of the dystopian and utopian predictions about the affordances of the Internet concerned the consequences of new communication technologies for *social networks and social capital*, this dimension has been the topic of many studies. Since the late 1990s, research has focused on the interactive nature of Internet use, which started with email and the "Talk" application (Baym, 2010), by looking at its effect on the size and quality of online and offline social net-

4) The theory of affordances is developed by Gibson (1979) in the field of (ecological) psychology, and has been introduced into sociological studies of technology by Norman (1988/2002) and Hutchby (2001). Hutchby (2001) has used the concept of affordances to counter the technological determinism versus the social constructivism debate. A benefit of the term "affordances" is that it covers both the enabling and constraining factors of the given technology, and avoids the one-directional relationship that concepts such as "effect" imply. Furthermore, as Hutchby (2001) stresses, affordances are also relational, meaning that the affordances of a technology may differ between groups. For a further discussion on the theory and its application to technology, see Bloomfield et al. (2010).

works (cf. Bargh & McKenna, 2004; Cummings, Butler & Kraut, 2002; Katz & Aspden, 1997; Kraut et al., 1998, 2002; Reich et al., 2012; Valkenburg & Peter, 2007, 2009a, 2009b; Van den Eijnden, Meerkerk, Vermulst, Spijkerman & Engels, 2008). Internet use by adolescents has been examined in relation to the maintenance and expansion of their social networks online and the formation of romantic relationships (Bargh & Mckenna, 2004; Collins, 2003; Peter, Valkenburg & Schouten, 2005; Reich et al., 2012; Subrahmanyam & Greenfield, 2008). Conclusions about social capital and the Internet use of this group have been drawn in studies about the use of social networking sites for forming friendships, well-being, participation in online communities and the effectiveness of self-help groups (cf. Ahn, 2012; Barak, Boniel-Nissim & Suler, 2008; Bargh & McKenna, 2004; Franzen, 2003; Vergeer & Pelzer, 2009; Wellman, Quan-Haase, Witte & Hampton, 2001).

Participation refers to engagement in both social groups and society. The asynchronous nature of online communication and the insignificance of location have made the maintenance and creation of and participation in social networks much easier (Baym, 2010). Furthermore, Hargittai and Walejko (2008) have showed that the online world provides many opportunities for the creative expressions of adolescents, enabling them to explore and articulate their interests and hobbies. Moreover, online communication applications also facilitate the dissemination of news or political and civic messages, the mobilization of individuals in favour of certain causes, and engagement in discussions about civic and political topics (Gil de Zúñiga & Valenzuela, 2010). Studies investigating adolescent participation in online civic and political activities have produced conflicting outcomes concerning the extent to which adolescents participate politically online (cf. Neys & Jansz, 2010; Quintelier & Theocharis, 2013; Zukin et al., 2006). As a consequence, the question arises as to whether adolescents really seize the opportunities to participate in society afforded to them by the Internet.

Participation in social groups not only promotes social cohesion, but is also important for individual well-being by encouraging the development of social skills, individual growth and a sense of belonging and secu-

rity (Peruzzi, 2014; Ridge, 2011; Ridge & Millar, 2000). This participation in groups requires financial, educational, cultural and social resources (Livingstone & Helsper, 2007). These resources are, however, divided unequally in society and are often accumulated, making it more difficult for some groups to be socially included. This unequal distribution of resources, and the differences in *social inclusion*, are not only visible in terms of offline involvement and inclusion in social groups, but may also be reflected in online social and societal participation. High Internet saturation has caused a shift from "simple" differences in access to differences in motivations, use and digital skills (Van Dijk, 2006). These differences in resources may facilitate or hinder the online civic and political involvement of adolescents. Furthermore, since being online is part of an adolescent's everyday life, not being able to take part in online activities may inhibit their social participation and inclusion in peer groups. Moreover, when adolescents regard devices for accessing the Internet as status symbols (Sletten, 2010), it not only becomes necessary to be online, but to also possess the "right", cool Smartphone or tablet to fit in with peer groups.

The focus on social networks, social inclusion and participation does not lead to the complete exclusion from this dissertation of the other three dimensions, because the different dimensions of social cohesion are strongly interrelated. The creation of new ties and the maintenance of social networks very much depend on shared values and norms and identification. In their online activities, adolescents also seem to be aware of the wider social order and control of their online behaviour.

Shared values and norms and similar ideas and preferences promote the development of mutual understanding and friendships. Several affordances of the Internet, including reduced social cues, the insignificance of geographical location and the ease of creating online communities, facilitate relationship formation that is based on shared interests and values. Although most adolescents communicate online within their existing offline social network, there is a small group that expands their online network (Baym, 2010). Sharing certain values and norms also makes deviating behaviour visible, especially when it comes to the general bench-

marks of good behaviour. In the relative anonymity of the online world, some individuals transgress the values and standards of good behaviour. Anonymous comments on, for instance, news articles and YouTube often contain insulting and offensive language (Moor, Heuvelman & Verleur, 2010). The norms regarding the utilization of the Internet and communication devices may also be unclear and ambiguous. Although some regard the use of Smartphones during face-to-face activities with peers or in public spaces as "normal", others find this behaviour to be impolite and ill-mannered (Baym, 2010).

The formation of new social connections is about who the other person is, i.e. their *identity* and intentions. Although the evaluation of an individual's trustworthiness may be more difficult online than during face-to-face communication, because of the fewer social cues available in most online communication channels, this lacuna also allows experimentation with online self-representations and identity (Baym, 2010; Valkenburg & Peter, 2008). By uploading certain photos and disclosing only particular information about themselves, adolescents are managing their representation and the impressions that others form about them (boyd, 2014). This online experimentation is especially interesting to adolescents, as it occurs at an age where they are discovering their own identities. Furthermore, scholars have shown that relative anonymity encourages self-disclosure, which in turn promotes interpersonal trust and the formation of relationships (Bargh & McKenna, 2004).

When they post information about themselves online, adolescents keep their audience in mind. They are aware that their peers look at what they do, but are also conscious of the wider *social order and the issue of control* when they use the Internet for communication, shopping and banking purposes (boyd, 2014). Lee and Cook (forthcoming) found that young people are aware that information is collected about them online. Nevertheless, they still use the Internet because they feel they have to and because "...surveillance does not concern them enough to refrain from engaging with a variety of digital tasks that are similar to everyday material practices" (Lee & Cook, forthcoming: 6). A study from the PEW Research Center by Smith (2013) reached similar conclusions: young people share

personal information with a large group of friends. Indeed, even though their Facebook profiles are often set to private, they are not concerned about others outside their group of friends collecting information about them. Furthermore, their parents also exert a degree of social order and control by establishing ground-rules about the amount of time that can be spent online and the nature of their children's online activities (Livingstone & Helsper, 2008). Depending on the rules, i.e. whether Internet use is restricted in general or for social purposes, parents can thus facilitate or inhibit their adolescent children's social cohesion.

1.2.4 Social networks, inclusion and participation

It can be concluded from this brief overview that, from an adolescent's perspective, use of the Internet predominantly facilitates inclusion in peer groups as a result of the maintenance of a social network. Although the Internet also makes the formation of new social ties and participation in society possible, and is a rich source of information, adolescents predominantly rely on the use of social media to maintain their existing social networks. Indeed, being included in social groups is important for their feelings of belonging, their personal and social identity, and as a source of social support and help. Their online activities take place within the context of general and parental social order and control. However, certain behaviours may also inhibit social cohesion, for instance, the frequent use of devices during offline conversations, the transgression of socially acceptable behaviour such as bullying, and the exclusion of certain individuals. Furthermore, social cohesion not only refers to adolescents "sticking together", but also to their integration into society. Accordingly, the participation of adolescents in society has also been investigated, because this affordance is regarded as particularly valuable by educators.

The other three dimensions are further investigated in the four empirical chapters that follow, which focus on family cohesion, the inclusion in peer groups, and online cultural and political participation. The most important ties in an adolescent's social network are family and friends, and it is with (and to) these ties that they spend most of their time, share personal matters and gain support. As a consequence, the first study in this dissertation focuses on adolescents' Internet use and their relationships with their

parents, while the second study investigates how this group's Internet use is related to social inclusion in peer groups. In the third and fourth studies, how adolescents' use of the Internet is related to their participation in society is assessed by investigating the cultural and political participation of these young people. Derived from the finding that adolescents are not very interested in highbrow culture and politics and the assumption that the online world provides opportunities to engage adolescents in societal participation, the extent to which Dutch adolescents actually take part in online cultural and political activities is also examined.

Although each of the four chapters aims to investigate a different dimension of social cohesion, the interrelatedness of these dimensions results in the integration of several dimensions in each study. This is seen most clearly in the importance of adolescents' social networks when it comes to their actions and preferences. From a social capital perspective, the integration into social networks is not just an indication of social cohesion; social networks also provide information and support and influence interests and preferences. As a consequence, the first two studies in this dissertation investigate the social networks of adolescents as an outcome, while the latter two include the social network as a resource for an individual's participation in society (see Figure 1.1).

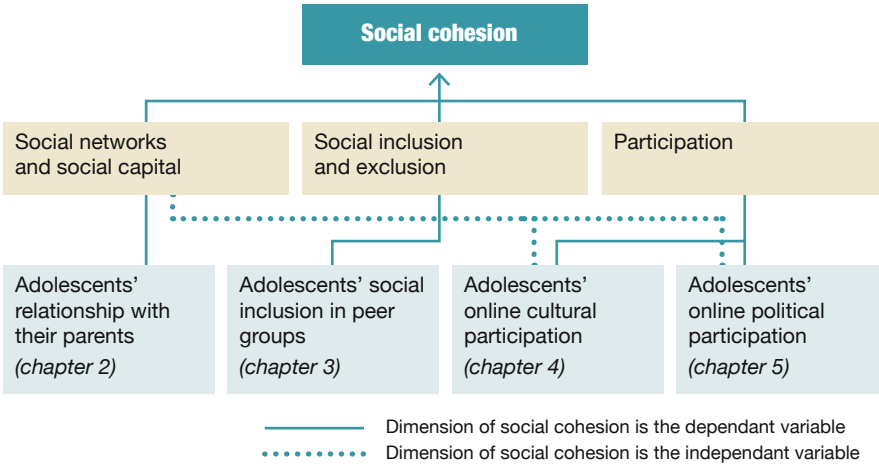

FIGURE 1.1 Conceptual model of the dimensions of social cohesion and the four studies in this dissertation

1.3 Research on adolescents' Internet use: providing a broader picture

Although the field of Internet use by adolescents is relatively new, and only started to develop in the 1990s (Subrahmanyam, Greenfield, Kraut & Gross, 2001), a lot of research has been conducted on how this group uses the Internet, and addresses a wide range of topics. How this usage is investigated and framed has changed significantly from the early days of the Internet. Most importantly, the polarized debate about adolescent Internet use has been tempered by the increasing number of empirical studies produced. Indeed, the benefits and caveats are now often framed as "the balancing of opportunities and risks" that young people encounter online (cf. Livingstone & Helsper, 2009; Valkenburg & Peter, 2011; Walrave, 2012). Although young people may face many risks, the benefits are also numerous. Furthermore, parents and children may have different perspectives on what the risks are; what adolescents regard as a benefit of an online presence, such as meeting new people, might be seen as a threat by their parents (boyd, 2014).

Another change is seen in the relationship between media use and the outcomes thereof. This relationship has often been framed in terms of the technology itself or with respect to how this use has an effect on users, social relationships or society in general. Although sometimes still adhered to, most scholars have moved away from this technological deterministic view (DiMaggio, Hargittai, Neuman & Robinson, 2001; Lievrouw & Livingstone, 2006). Commonly, the social shaping of the technology perspective is used to frame this relationship, with it being stated that the development of the Internet is a result of the permanent interactions between users and the technology. As an artefact, Internet technology is capable of satisfying personal and societal needs just as much as Internet entrepreneurs succeed in presenting new technological opportunities that are subsequently embraced by users (Lievrouw & Livingstone, 2006; Mackenzie & Wajcman, 1999). Consequently, technological and social processes are interdependent and cannot be treated separately.

The almost negligible differences in Internet access in Western countries has resulted in a reframing of differences in Internet use and the digital divide.[5] While differences used to be framed as contrasting dichotomies, such as users with non-users and digital natives with digital immigrants, current studies frame the digital divide in broader terms by looking at differences in motivations, skills and use (cf. Van Dijk, 2006; Van Deursen, 2010). Furthermore, several scholars have argued for the inclusion of online activities when investigating the outcomes of Internet use (cf. Anderson & Tracey, 2001). Mesch (2006a) and Lee and Chae (2007) have shown that adolescents who spend more online time on school assignments experience less conflict with their parents. Lee and Chae (2007) also identified a negative association between online gaming and a child's relationship with his or her parents.

Consequently, recent studies provide more nuanced insight into differences among the online participation of adolescents, thus also shedding new light on the digital native versus digital immigrant debate. It is difficult

5) In 2013, 100% of Dutch households with children were connected to the Internet (CBS, 2013).

to maintain that age is the main predictor of differences in Internet use (Lee, 2005; Nikken & Schols, forthcoming). Although adolescents start using new technologies at a young age, especially compared to those born before 1980, those born after 1980 are not a single, homogeneous group, because they differ in terms of their Internet use and digital skills (Bennett et al., 2008; Hargittai, 2010; Helsper & Eynon, 2010; Lee, 2005). Van Deursen, Van Dijk and Peters (2011) have shown that young people perform worse on informational skills than those who are older; although young people have more skills in using technologies, their elders perform better in evaluating online information. Regarding adolescents as a single group thus ignores the existence of cultural, cognitive and socioeconomic differences (Bennett et al., 2008).

Finally, studies focus on increasingly narrower topics. This tendency to explore niches in research fields provides detailed information about how certain groups benefit from using specific applications. However, based on these findings, it is difficult to provide an overall insight into how Internet use by adolescents contributes to social cohesion. This study therefore takes a step back in order to acquire a "broader picture".

1.4 Research questions

By investigating how adolescents use the Internet and its consequences for social cohesion, this dissertation answers the following research question:

How is the everyday Internet use of Dutch adolescents related to social cohesion?

This main question is divided into three different sub-questions, which are answered in the empirical studies that are reported in the subsequent chapters. The questions follow on from discussions about the Internet use of adolescents, the dimensions of social cohesion, and changes in perspectives about adolescents and Internet use. From the discussions of the dimensions of social cohesion and Internet use, it follows that social

cohesion is a multidimensional concept, which is defined as the "sticking together" of groups and society. The concept consists of six dimensions, of which social networks and social capital and social inclusion relate most clearly to adolescents' everyday Internet use. Furthermore, social cohesion also refers to engagement in society. In fact, educators, parents and politicians expect adolescents' Internet use to also increase their civic, political and cultural participation. Accordingly, how adolescents use the Internet is related to the social cohesion of both groups and society. The first sub-question is formulated as follows:

1 *How is the everyday Internet use of adolescents related to their social networks, social inclusion and participation in society?*

Adolescents are not a single, homogeneous group; they differ in their preferences, cognitive capacities and social background. They also differ in their Internet use, which is reflected in their different online activities and the time they spend online. These divergent behaviours are related to, among other things, their digital skills, preferences and opportunities to access the Internet. As a consequence, use of the Internet by adolescents is partly dependent on their individual capacities and resources. When investigating the consequences of this Internet use for social cohesion, it is therefore necessary to take into account these different online behaviours, as they may have a variety of effects. As previously mentioned, spending more time online for school is positively related to a good relationship with parents. Furthermore, online communication is advantageous for relationships with peers. The differences in use and digital skills may also facilitate or inhibit online societal engagement. Therefore, the second sub-question is:

2 *To what extent are differences in Internet use and skills among adolescents related to their online participation and social relationships?*

The extent to which adolescents' Internet use is related to social cohesion has to be investigated in the broader context of their circumstances,

experiences and skills. Indeed, their use of the Internet is not an isolated activity, but is also related to and dependent on other factors such as the socioeconomic situation of their families. Parental wealth greatly determines the possession and use of devices and therefore also online opportunities. Adolescents from low-income households spend less time online and have fewer skills when it comes to using different online applications (Bennet et al., 2008). In addition, Ridge (2009) has shown that adolescents from low-income families also experience difficulties in participating socially. This exclusion may to some extent be the result of them not owning popular consumption goods (Sletten, 2010). In line with the 'balancing of opportunities and risks' perspective, it is therefore recognized that adolescents' online activities result in both positive and negative experiences. As a consequence, it is important to include other relevant factors when investigating the issue of how use of the Internet by adolescents is related to social cohesion. This leads to the third sub-question:

3 *Which factors other than Internet use are relevant in explaining differences in social cohesion among adolescents?*

The three research sub-questions are addressed in each of the four studies that follow. Adolescents' social networks are included in each of these studies, either as an outcome or dependent variable, with the focus being on how adolescent Internet use is related to their relationships with their parents and their inclusion in peer groups, or how the Internet is utilized as a resource for participation in cultural and political activities. Since the second research question's formulation of differences in Internet use among adolescents may reveal different online and offline relationships and levels of participation, each study takes into account their online activities, the amount of time they spend online and, when applicable, their digital skills. Furthermore, Internet use by adolescents is placed in the context of the opportunities and resources available to them, most notably the socioeconomic context. When investigating adolescents' inclusion in peer groups in the second chapter, their ability to purchase certain "cool" devices and be online is considered. Monetarily-poor adolescents may not possess the newest technologies, and may even have

fewer opportunities to go online and participate in online conversations with peers, thus inhibiting their involvement in peer groups. Furthermore, growing up in a culturally active family is likely to promote the children's own interest in culture. Consequently, in each of the four chapters, the context is included in order to investigate how adolescents' Internet use is related to social cohesion.

1.5 Main theories and explanations

Each of the four chapters aims to answer the three sub-questions concerning the specific dimension of social cohesion that is central in that chapter. The different approaches and topics require different theories and explanations, which are discussed in each of the chapters. In addition, the dissertation employs theories that are applicable to many different contexts, including the ones covered in each chapter. These overarching theories are discussed here, with the focus being on their explanatory power concerning the dimensions of social cohesion that are researched in this dissertation. The starting point for these theories is networked individualism.

1.5.1 Networked individualism

Even before the Internet became a part of our everyday lives, social relationships changed from being group-based to networks. So, instead of being part of small, closely-knitted groups, individuals participate in different social networks, while relationships have also become less hierarchical. The Internet has facilitated these changes, leading to what Wellman (2001) calls "networked individualism".

Rainie and Wellman (2012) define networked individualism as an operating system, "...because it described the ways in which people connect, communicate, and exchange information" (Rainie & Wellman, 2012:7). Individuals use technologies to personally connect to and communicate with others, and these are similar to those that use operating systems to function. This connection and communication in our current networked society is different when compared to society some decades

ago. Individuals used to be embedded in small groups in towns and neighbourhoods, relying on those living nearby. In the current networked society, people are part of several, looser, social networks. These networks provide different resources and support, and are easily reached and maintained. Through both face-to-face interactions and, increasingly, social media, individuals communicate with their strong and weak ties. Furthermore, social relationships are less focused on groups and more on person-to-person communication (boyd, 2014; Wellman, 2001). Instead of calling a household, we send messages or ring someone's Smartphone directly. The different social media platforms that adolescents use allow them to chat with their social networks or approach them for help, and to share online content regardless of the time and place. In addition, social relationships have become less hierarchically structured. This is seen, for instance, in families, where communication is increasingly egalitarian (Koerner & Fitzpatrick, 2002). Kennedy and Wellman (2007) describe today's families as "networked families" (see also Rainie & Wellman, 2012). As a consequence, the way that adolescents communicate with their strong and weak ties has changed significantly. Although the changes in social relationships started well before the introduction of the Internet (Du Bois-Reymond, Buchner & Kruger, 1993), they are facilitated by new communication technologies.

Even though theories about differences in offline phenomena have been useful in explaining differences in similar online phenomena, the changes in social relationships as captured by networked individualism may need new or different explanatory mechanisms. In a networked society, it is difficult to maintain the view that families with teenage children are closed systems when adolescents are always connected to their peers. This constant communication with peers and their Internet use may also have reduced their parents' sphere of influence. Furthermore, online participation requires different and new skills compared to offline involvement.

1.5.2 Socialization and the conceptualization of the family

In order to function "adequately" in society, individuals acquire skills, interests, habits, norms and values during childhood. It is particularly through interactions with strong ties, that is, with parents and close friends, that

children are socialized and internalize behaviours, norms and values. Families play a large, if not the major, role in their children's development and socialization, along with peers, schools and media (Maccoby, 1992; McLeod, 2000). The influence of parental socialization is especially seen in adolescents' cultural preferences. When their parents are interested and participate in highbrow culture, their children are also more likely to engage with these cultural activities (Bourdieu, 1979/1989; Ganzeboom, 1989). Similar socialization processes are seen when it comes to political values (Jennings, Stoker & Bowers, 2009).

In studies about the role of media use within families, the family systems perspective is often applied. According to this perspective, the family is an organized whole consisting of hierarchically organized subsystems or dyadic relationships, and is able to adapt to change (Cox & Paley, 1997, 2003). By studying the family as a whole, the family systems approach assumes that the norms, values and patterns that define the family system determine how children use media (Jordan, 2004). However, the family systems approach focuses specifically on the family and is often applied in a manner that present the family as a rather closed system. Furthermore, the Internet is part of everyday family life and cannot be regarded as an external influence that can shift the internal balance of the system, as the family systems approach assumes (cf. Kayany & Yelsma, 2000; Mesch, 2006b, Watt & White, 1999). Moreover, the focus on the internal system often results in the exclusion of actors outside the family, such as extended family members and peers (cf. Lee & Chae, 2007; Mesch, 2006a).

In today's networked society, adolescents are in constant contact with their peers. The increased use of new media offers these young people the opportunity to express themselves, and communicate and share content with friends at any time, facilitating the development of youth cultures and peer influence on identity and preferences via the Internet (boyd, 2014; Ito et al., 2010). Accordingly, peers, youth cultures and media have gained importance in the development of interests and the shaping of identities (Baym, 2010; Arnett, 1995). As Arnett (1995: 519) argues, "...adolescents have greater control over their media choices than they do

over their socialization from these other sources", because they can select from media what suits their preferences and personalities the most. This increased influence of peers and media in adolescents' social networks, and the development of their preferences and values, come partly at the cost of parental influence (Baym, 2010).

The networked families or the networked household standpoint is developed within the broader perspective of networked individualism, and conceptualizes the family as a network of interacting individuals (Kennedy & Wellman, 2007; Rainie & Wellman, 2012). Household members are regarded as semi-autonomous actors, interacting and coordinating their individual agendas (Kennedy & Wellman, 2007). New communication technologies assist household members in their coordination of agendas, but they are also important for exchanging information and creating a feeling of closeness and belonging among family members (Christensen, 2009; Rainie & Wellman, 2012). Since the family is conceptualized as a network, this perspective also emphasizes the importance of taking into account factors and relationships that are not part of the nuclear family. For adolescents, this means the inclusion of peers in the analytical framework. Families are not single entities, but are connected to and interact with their environment in today's networked society. Although families are still important for socialization and the provision of safety, knowledge of an adolescent's social network is essential when investigating how their Internet use relates to social cohesion, because these young people are constantly connected to it. Accordingly, the networked family perspective is presented in this dissertation as a better framework to investigate the Internet use and social networks of adolescents.

1.5.3. Social outcomes of Internet use

Several early studies investigating the social outcomes of Internet use found that the increased utilization of this tool results in the displacement of social activities. Concerns were mostly targeted at the entertainment function of the Internet, and in that sense are similar to those raised about television. Putnam (2000: 231), for instance, argued that watching TV for entertainment purposes is "...the single most consistent predictor" of civic disengagement. This displacement of social activities is most clearly

described in the time displacement hypothesis, which states that spending more time online displaces social activities and interaction or functionally equal activities like watching television (Kayany & Yelsma, 2000; Kraut et al., 1998; Nie, 2001; Vergeer & Pelzer, 2009). In other words, increased Internet use may displace activities with social ties, or individuals may use new instead of older media for similar activities that are performed more efficiently online, such as news gathering and entertainment (Mesch & Talmud, 2010).

While earlier research found a fall in the number and size of social networks of those using the Internet, most of the more recent studies do not confirm the displacement of social activities by Internet use (cf. Kraut et al., 1998, 2002; Nie & Erbring, 2000; Vergeer & Pelzer, 2009). These contradictory findings result from changes in how the Internet is used. As very few homes had Internet access in the mid- and late 1990s, individuals spending time online communicated with others outside their offline social network. As a consequence, spending more time online with their online social network resulted in a negative trade-off in terms of time spent with their offline social network (Kraut et al., 2002). This trade-off disappeared with the increasing availability of the Internet in households, as the online and offline networks of adolescents now largely overlap (Valkenburg & Peter, 2007). Nevertheless, there have been contradictory results in the research on how family time is displaced by Internet use; while some studies found no effect, others revealed the displacement of shared family activities (Lanigan, Bold & Chenoweth, 2009; Lee & Chae, 2007; Mesch, 2003). This makes it interesting to investigate whether Internet use may come at the cost of family activities and social relationships.

Social outcomes may also differ between individuals. For adolescents who experience more loneliness and have problems forming offline social networks, the Internet may provide them with an alternative way to connect to others (Ellison, Steinfield & Lampe, 2007; McKenna et al, 2002; Morahan-Martin & Schumacher, 2003; Valkenburg & Peter, 2007). However, Internet use may also be beneficial for extraverts with good social skills, who may regard the online world as just another way to communicate with their peers (Kraut et al., 2002; Lee, 2009; Valkenburg

& Peter, 2007). Social media allows individuals to contact their social networks with ease and to appeal to their social capital. It is certainly easier to contact or communicate with a large group of friends today, for instance when one needs help or for everyday small talk (Rainie & Wellman, 2012; Reich et al., 2012).

Adolescents' online communications may foster friendships and increase their participation in society. During conversations, or from the content they encounter online, these young people come across information that creates awareness of civic issues. In fact, the Internet could also be framed as a resource for societal participation. Indeed, from a cost-benefit perspective, adolescents' societal participation is expected to rise because of the new opportunities that social media provide. These opportunities reduce the costs of participation in civic and political activities compared to those of their offline equivalents. Offline participation in society requires an investment of time, certain civic or social skills and, sometimes, money, for instance when it comes to being a member of a civic or political party (Brady et al., 1995). Online, the investments of time and skill appear to be less, resulting in an expectation of increased political, civic and cultural engagement. Although this prediction has not turned out to be as straightforward as expected, the Internet offers several affordances that reduce the barriers to participation and provides opportunities for increased engagement (cf. Calenda & Meijer, 2009; Neys & Jansz, 2010).

1.5.4 The digital divide: a new source of inequality

The outcomes of adolescents' Internet use differ because of their personal characteristics and resources. They also depend on what these youngsters do online, which concerns more than just the time spent online. The near saturation of Internet access in the Netherlands has made the traditional divide between the "haves" and the "have-nots" redundant (cf. Hargittai, 2002). Internet access became available in 100% of Dutch households with children in 2013, which obviously included the traditionally disadvantaged single-parent homes (CBS, 2013). The presence of children appears to promote the acquisition of Internet access, which is reflected in the lower saturation rate in childless households:

in 2013, 96% of couple-households had access compared to only 88% of single-person-homes (CBS, 2013).

Long before this near saturation was achieved, scholars argued for a broader conceptualization of the digital divide. Although some claimed that differences in Internet use would eventually disappear, thus adhering to a normalization perspective, others stated that differences in resources would remain, thereby following the stratification perspective, or that they would even increase, which is captured by the reinforcement viewpoint (Norris, 2001). According to the stratification and reinforcement hypotheses, individuals who are more advantaged offline are likely to maintain, or even reinforce, their position online. These latter expectations have often been confirmed, as it seems that online differences and their consequences do not disappear when everyone has access to the Internet (cf. Boulianne, 2009). In fact, online differences and outcomes depend on several factors, including the possession of devices with which to access the Internet, the ability to use new technologies, differences in the actual use of the Internet, and the motivation to use the Internet (Hargittai, 2002; Van Dijk, 2006). Although it has been claimed that adolescents are digitally savvy and possess the motivation and skills to use the Internet, Hargittai (2002) and Hargittai and Hinnant (2008) have shown that there is a clear "second-level divide" in the extent to which adolescents are able to use online applications (see also Gui & Argentin, 2011; Hargittai, 2010; Hargittai & Shaw, 2013; Van Deursen, 2010, Van Deursen et al., 2011). In addition, the actual use of applications also has consequences for adolescents' online and offline participation. The Internet is an important information resource and learning tool, assisting adolescents with their education. Moreover, the Internet is integrated in the maintenance and creation of social networks (Reich et al., 2012). As a consequence, being better able to and more interested in and motivated to use applications that promote individual development and social relationships may create an advantage over those using these applications less.

The online differences and consequences also depend on an individual's resources and environment. The surroundings in which a child grows up influence their economic, cultural and social capital, which together pro-

mote or hinder their participation on and offline. Family structure, peers and education influence cognitive and social skills, wealth and interests, determining an adolescent's engagement in online and offline activities and ability to participate in them. The different types of capital and interest are gained through education and socialization (cf. Bourdieu, 1979/1989; Coleman, 1988; Putnam, 2000).

If the online world does indeed reflect offline differences, thus confirming the stratification or even the reinforcement hypothesis, digital skills and possibly also differences in online uses are forces of stratification and inequality in society. Particularly because levels of digital skill appear to differ with socioeconomic status, this hinders the less-advantaged even more in pursuing economic success and in terms of their personal development. Being less digitally skilled may result in difficulties when it comes to engaging in online activities with friends or could hamper engagement in online political and cultural activities. This lower level of involvement could even lead to exclusion from peer activities and peer groups. This highlights the importance of not only investigating the time that individuals spend online and traditional differences between socioeconomic groups, but also the differences in digital skills and online activities and their consequences for adolescents' social relationships and societal participation.

1.6 Investigating adolescents' Internet use and social cohesion

1.6.1 The four studies

The four empirical studies in this dissertation contribute to answering all of the research questions by investigating how adolescents' Internet use is related to the different dimensions of social cohesion. In the first empirical chapter, how adolescents use the Internet and their relationships with their parents are examined. The parent-child relationship is defined here as the time spent together (quantity) and the extent to which adolescents discuss current issues and personal matters (quality). Adolescents' Internet use is placed within the context of the networked household, and also includes relationships with friends. The main question answered in this first study is: *To what extent can the quantity and quality of the*

relationships between adolescents and their parents be explained by Internet use, individual characteristics of adolescents, and their relationships with peers?

The second study investigates how the extent to which adolescents are included in peer groups differs between those with different socioeconomic backgrounds. Individuals from poorer socioeconomic groups experience difficulties more often when it comes to participating socially, and they generally have fewer opportunities to access the Internet and engage in online conversations. However, when they do have the chance to engage in online activities and conversations, this may counterbalance the negative social effects that often come with deprivation. As a result, the main question of the second study is formulated as follows: *To what extent can their Internet use compensate for the limited social participation of disadvantaged Dutch adolescents?*

The third study focuses on adolescents' online cultural participation and answers the question: *To what extent do adolescents communicate online about highbrow and popular culture, and how can differences in online cultural communication be explained?* Since popular culture like, for instance, TV shows, pop music, video games and comedy reflect adolescents' interests and youth culture, this group's participation in and communication about these topics has been investigated. However, to what extent adolescents use the Internet for highbrow culture has not yet been studied. Although most adolescents are not interested in culture like classical music and museums, their extensive Internet use may lower the barrier when it comes to engaging in online highbrow culture. In this third study, adolescents' online cultural participation is placed within the context of the increased importance of socialization by peers and media, which is partly at the cost of socialization by parents and schools.

Similar to the study of online cultural participation, it was expected that adolescents' extensive Internet use would heighten their awareness of and engagement in political activities. Accordingly, the fourth study investigates to what extent adolescents' Internet use is related to their offline and online political participation. Since discussions with both strong and

weak ties may increase their interest and engagement in political activities, the affordance of social networks for adolescents' political participation is examined. The main question in this fourth study is: *To what extent is the online political participation of Dutch adolescents influenced by their online presence, social network, digital skills, and political interest?*

The four studies have been written as articles, which have been presented at various conferences and submitted to journals. The main author of each of the articles has been the PhD candidate, with a minor extra contribution of the supervisors in three chapters (see footnotes at the start of each chapter for the co-authors). This contribution mainly lied in determining the direction and main question of the article, providing feedback on the concept of the article and pointing out relevant literature. All supervisors have read and provided feedback on the draft versions of the chapters.

1.6.2 Method and data

In order to provide insight into how Internet use contributes to social cohesion among adolescents in the Netherlands, large-scale survey research was utilized to provide a nationally representative overview. Three different, nationwide surveys that reflect (ASOUK, 2008) or approximately represent adolescents in the Netherlands have been used (ICTS, 2008 and OPPA, 2013). Two of these surveys, ASOUK (2008) and ICTS (2008), were undertaken for purposes other than this dissertation. They are nevertheless useful because of the extent of their information on specific dimensions of social cohesion and the Internet use of the respondents. Furthermore, collecting nationally representative data is expensive and demanding. Using existing surveys is therefore a suitable alternative. However, it was possible to conduct one survey specifically for the current research, and this focuses on the online and offline political participation of adolescents and their online and offline social networks (OPPA, 2013).

The groups investigated in each of the chapters differ somewhat in age. Three studies examined adolescents in the age range 12-17, while the research on political participation focused on a somewhat older group, aged 16-30. By investigating an older and wider age group, it was

expected that there would be more differences in terms of levels of political participation, Internet use and skills. Furthermore, since Dutch individuals aged 18 and older are eligible to vote, those under the age of 16 are not expected to participate much in politics. A more practical reason was that respondents aged 16-18 only needed a one-time permission from their parents to participate in surveys, meaning that they were easier to question than those below the age of 16. Since the concept of teenagers is relevant in only three of the four studies in this dissertation, the term "adolescent" is used to refer to the respondents investigated in this dissertation. For further information about the data used and the methods, see the methodological sections in each chapter.

1.6.3 Four approaches to the everyday online activities and social cohesion of adolescents

It is hard to imagine contemporary adolescents not having access to the Internet. Indeed, they use the Internet to connect with peers, explore their identities and boundaries, and for school and entertainment. In popular discussions, adolescents' Internet use is predominantly framed as being a potential threat and as posing a number of risks. These threats and risks relate both to the negative consequences that use of the Internet may have with respect to social networks and coherence in society, and the individual risks that adolescents may encounter when communicating and searching online content. Although they may act irresponsibly online every now and then, the many positive outcomes of adolescents' everyday Internet use tend to be neglected in these public arguments. This dissertation aims to redress this imbalance by focusing on the positive contributions of everyday Internet use to adolescents' social networks, social inclusion and participation.

Although social cohesion has often been framed and used to indicate a lack of coherence in society, the concept refers to the "sticking together" of individuals as groups and the social glue in society. Furthermore, social cohesion is a multidimensional concept, making it necessary to investigate several dimensions before one can draw conclusions about its levels. By investigating various dimensions of social cohesion, this dissertation provides insight into how adolescents' Internet use is related to the con-

cept. For these young people, the Internet affords them to build and maintain social networks and social capital and to be included in peer groups. Parents and teachers also regard the tool as an information resource and a way to participate in society. The issue then concerns the extent to which adolescents seize this opportunity and also use the Internet to engage in online cultural and political activities.

By investigating several dimensions of social cohesion using large-scale, nationally representative data, this dissertation also allows us to draw conclusions about both how Dutch adolescents use the Internet and social cohesion. This counterbalances the many studies that focus on increasingly smaller topics and samples. By investigating the online behaviour of adolescents in relation to their relationships with their parents, their inclusion in peer groups, and their online cultural and political participation, this dissertation provides clear insight into how adolescents' Internet use is related to social cohesion in today's networked society.

CHAPTER 2

Adolescents' Internet use and their relationship with their parents

Abstract[6)]

Contemporary families consist of a network of interacting family members who communicate with each other and non-family members both face-to-face and via new communication technologies. We took this observation as the starting point in our analysis of the relationship between the Internet use of adolescents and the quantity, defined as shared family time and activities, and quality of the parent-child relationship. In terms of theory, the networked household perspective was critically combined with theorizing on time displacement. The results of a large-scale survey of 1026 Dutch adolescents show that contemporary families are networked households, and also reveal the importance of taking into account relationships with non-family members. We also found support for the time displacement effect of Internet use within families.

2.1 Introduction

New media forms are widely used in Western countries, especially by the younger generations. Although children's use of new media has expanded to other locations and social institutions, for instance schools, the home is still the primary place where they learn to use, and then actually use, the Internet for entertainment, social interaction and to obtain information (Baym, 2010). The domestication of new media has therefore received a great deal of research attention, with the focus particularly being on the risks that children encounter when using the Internet and how par-

6) Previous versions of this chapter have been presented at ECREA 2012 and ICA 2013:
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Schols, M., J. de Haan & J. Jansz (2013). Teenagers' Internet use and the relationship with their parents. *Paper presented at the ICA 2013 Annual Conference*, 17-21 June 2013, London.

ents manage what their children do online (Livingstone, Haddon, Görzig & Ólafsson, 2011; Livingstone & Helsper, 2008; Lee, 2013; Walrave & Heirman, 2011). The extent to which Internet use can influence family relationships, especially their quality, has received less attention (Lee & Chae, 2007). Accordingly, to provide better insight into how adolescents' Internet use is related to family cohesion, we investigated both family time and activities and the quality of the parent-child relationship.

The results of previous studies on Internet use and family relationships are inconsistent. Although some scholars have identified a positive association (cf. Lanigan et al., 2009), others have found that spending more time online is related to both a reduction in family time and family communication, and greater conflict within families (cf. Kayany & Yelsma, 2000; Mesch, 2003, 2006a, 2006b). This inconsistency may be due to investigations of rather small or selective groups, which limits the ability to generalize with respect to larger groups in society, and the diverse and sometimes limited conception of Internet use. Indeed, it is not only the duration of Internet use that is important, but also online activities that are related to the quality of relationships (Hughes & Hans, 2001; Mesch, 2006b). Using the Internet more for school, for example, leads to less conflict than using it for playing games (Mesch, 2003). As a consequence, time spent online, online activities and the relationship with parents were investigated among a large and diverse group of adolescents.

Adolescents' Internet use is not the only factor to possibly influence the relationship between them and their parents. While scholars have mainly investigated individual and family characteristics like the age of children, gender and family size when explaining differences in family cohesion (cf. Lanigan et al., 2009; Lee & Chae, 2007; Yeung, Sandberg, Davis-Kean & Hofferth, 2001), it is argued in this research that peer relationships should also be included in the analysis. For adolescents, their friends become increasingly important, which is reflected in the growing amount of time they spend together and the number of discussions they have about personal issues (Larson, Richards, Moneta & Holmbeck, 1996). This may displace the need to spend time and converse with parents (Lee & Chae, 2007; Mesch & Talmud, 2010).

To better understand previous contradictory results and gain more insight into how adolescents' use of the Internet and online activities are related to family cohesion, we investigated a large and diverse group of Dutch adolescents with respect to how their Internet use, what they do online, and their peer relationships are connected to the time they spend with their parents and the quality of the parent-child relationship. The central research question is:

To what extent can the quantity and quality of the relationship between adolescents and their parents be explained by Internet use, individual characteristics of adolescents, and their relationships with peers?

2.2 The networked household

The nuclear family is a network of strong ties, and comprises relationships to which people devote a substantial amount of time and which are characterized by emotional intensity, intimacy and reciprocity (Granovetter, 1973). A cohesive family can be described as a family with strong emotional and intimate bonds (Olson, 2000), or as the "… positive involvement of parents with their children, as reflected in shared activities, supportive behaviour, and affection" (Mesch, 2006a: 121). Too much cohesion may hamper a child's development, as it can lead to highly controlled and closed relationships (Olson, 2000). On the other hand, low levels of family cohesion may lead to more behavioural problems of children. Previous research has indicated that greater parental involvement is related to fewer problems at school and fewer emotional and behavioural issues in the home environment (Amato & Rivera, 1999).

Scholars investigating Internet use within nuclear families often employ the family systems perspective, whereby the family is regarded as an adaptable organized whole consisting of hierarchically organized subsystems or dyadic relationships. The relationships between family members are influenced by the context in which the system operates and by other relationships within the system (Cox & Paley, 1997, 2003). This perspec-

tive presents the family as a rather closed unit in which the introduction of a new technology changes the roles and relationships (Kayany & Yelsma, 2000; Mesch, 2006b, Watt & White, 1999). Relationships with people outside the system are often not included (cf. Mesch, 2006a)

The networked household or networked family perspective appears to offer a better conceptualization of today's families by regarding them as a network of interacting individuals in which new communication technologies play an important role (Kennedy & Wellman, 2007; Rainie & Wellman, 2012). Rather than regarding the household as a unit or group, "… each household member functions as a semi-autonomous actor, with her/his own agenda, using a variety of transportation and communication media to contact and coordinate with each other" (Kennedy & Wellman, 2007: 646). New communication technologies help family members to coordinate their individual time schedules, but to also exchange personal or funny information and content. This mediated communication may create a feeling of closeness when family members are not together (Christensen, 2009; Rainie & Wellman, 2012). Furthermore, the perspective emphasizes the importance of taking into account factors that are not directly part of the nuclear family, among which the communication of household members with friends and other relatives outside the home. For adolescents, for instance, their peers become increasingly important, partly even at the expense of parental influence (Baym, 2010; Emmerich, 1977). The Internet makes the ongoing interaction between peers beyond facial co-presence possible.

Although new communication technologies facilitate, and may reinforce, changes in family relationships and communication (cf. Correa, Straubhaar, Chen & Spence, 2015), the interactions and family roles had already started to transform under the influence of broader ongoing trends in society, such as women's greater participation in the labour market and changes in family composition (Bengtson, 2001; Kennedy & Wellman, 2007; Rainie & Wellman, 2012; Wellman, 2001). In line with findings on family communication, the networked household perspective states that the interactions among family members have become more egalitarian

and focused on *person-to-person* rather than group interaction (Du Bois-Reymond et al., 1993; Koerner & Fitzpatrick, 2002; Wellman, 2001).

2.3 The relationship between adolescents and their parents

A cohesive family is not simply a family that spends time together. As follows from the networked household perspective, communication and the strength of the bond are also important aspects of the parent-child relationship. The strength is reflected in emotional bonding or mutual affection, and the extent to which parents and children share similar norms, values and boundaries (Bengtson, 2001; Olson, 2000). A cohesive family can therefore be defined as a family that spends time together, shows affection, shares opinions and ideas about norms, obligations and values, and, in doing so, communicates.

Following on from previous research and based on the networked household perspective, the daily interactions and the amount of time family members spend together are investigated in this chapter (cf. Larson et al., 1996; Lee & Chae, 2007). These two aspects of family cohesion relate to the quantity (the shared family time) and the quality (the extent to which family members communicate about personal matters and current issues) of the parent-child relationship. It is implied that a disconnect between the norms, values and boundaries of adolescents and their parents is reflected in a more distant relationship, less time spent together and less affection. In the following paragraphs, the possible links between adolescents' Internet use and the quality and quality of the parent-child relationship are discussed.

Shared family time

A frequently tested assumption in research on Internet use and shared time is the time displacement hypothesis. With only a limited number of hours in a day, this hypothesis states that spending more time on one particular activity reduces the time available for other activities (Nie, 2001; Vergeer & Pelzer, 2009). These "sacrificed" activities are often social

events, interaction with one's social network, or functionally similar activities like watching television (Kayany & Yelsma, 2000; Kraut et al., 1998).

In research in the late 1990s and early 2000s on relationships with friends, the displacement of social activities due to Internet use was confirmed several times (Kraut et al., 1998; Nie & Erbring, 2000). However, more recent studies do not identify such a time displacement effect on social relationships or social activities (Valkenburg & Peter, 2007; Vergeer & Pelzer, 2009). An explanation for these contradictory conclusions may be the limited diffusion of the Internet at the time of the earlier studies: because not everyone was connected to the Internet then, it was impossible to maintain an offline social network via the Internet. Spending more time online thus reduced the available time for the offline social network (Kraut et al., 2002; Valkenburg & Peter, 2009a).

Studies on the displacement of family time as a result of Internet use have produced inconclusive results. In an attempt to explain the absence of a finding that Internet use has an impact on shared family time, Mesch (2003) argues that using the Internet is a shared activity. Another explanation is provided by the functional displacement hypothesis. This premise states that offline activities are displaced by online activities that satisfy the same needs and are conducted more efficiently online (Mesch & Talmud, 2010). Lanigan et al. (2009) found that Internet use displaces solitary activities, while Lee and Chae (2007) discovered a reduction in passive, shared family time among 10-12 year olds. These passive activities comprise shared activities that do not necessarily imply active personal communication between parents and children, for example watching television together. It is therefore assumed that a displacement effect is seen in shared family time when adolescents use the Internet more often.

> ***H1.*** *Adolescents who spend more time online spend less time with their parents.*

A specific functional equivalent activity that Internet use may displace is face-to-face communication (Mesch & Talmud, 2010). Applications such as social networking sites are immensely popular among adolescents and

allow them to communicate with their friends outside school. Lee and Chae (2007) found that the increased use of these online communication tools satisfied and displaced the need for communication with family members. It is therefore expected that adolescents who more spend time online on communicating do so at the expense of spending time with their parents.

> ***H2.*** *Adolescents who spend more time communicating online spend less time with their parents.*

Following the networked household perspective, we will also investigate the social networks of adolescents. As adolescents grow older, they become less engaged with and spend less time in the company of their family; instead, they spend time on their own at home, with friends or at places of work (Larson et al., 1996). It is therefore expected that older adolescents will spend less time with their parents, and that spending more time with friends displaces the shared family time.

> ***H3.*** *Older adolescents spend less time with their families than younger adolescents.*

> ***H4.*** *Adolescents who spend more time with their friends spend less time with their parents.*

Quality of the relationship

Despite the mainly positive influences of Internet use on social contacts reported in research, concern is also voiced about the decline in face-to-face interactions and the lower quality of online communication, especially among adolescents (Turkle, 2011). Communication applications are among the most utilized on the Internet (Purcell, 2011). For adolescents, the various mobile technologies and "apps" available make it easy to contact friends and relatives. However, the limited visual and auditory cues inhibit the quality of this kind of communication (Bargh & McKenna, 2004). Online communication is thus more superficial and cursory, and using the Internet to maintain relationships may therefore adversely affect the quality of them.

The shallowness of online communication, the frequent use of communication applications and adolescents' preference for using the Internet for entertainment may be a source of conflict with their parents. Parents prefer their children to use the Internet for educational purposes and to not otherwise spend much time online (Mesch, 2003, 2006b). Differences in expectations about online behaviour may therefore lead to conflict and negatively affect the quality of the relationship between adolescents and their parents (Mesch, 2003, 2006a).

The quality of the parent-child relationship may also be affected when adolescents prefer to talk to their social network rather than to their parents. As argued before, based on the functional displacement hypothesis, the need for adolescents to communicate with their parents may also be satisfied and displaced by the functionally equivalent activity of online communication with their social ties (cf. Lee & Chae, 2007). The relationship with their parents is likely to be of a higher quality when adolescents are generally more willing to disclose personal information. We assume that adolescents who are more open towards others, and who have better social skills, are also more likely to be open towards their parents than those who are more reserved when it comes to personal disclosures. Furthermore, adolescence is a period of increased conflict and distancing from parents. However, Larson et al. (1996) found that even though older adolescents spend more time away from home and on their own, they do talk more to their parents than their younger counterparts. It is therefore expected that the quality of the relationship with parents will improve as children get older.

Following on from these arguments, it is hypothesized that adolescents who spend more time online in general, and on communication in particular, will report a poorer parent-child relationship. Since using the Internet for educational purposes is in line with parental preferences, adolescents who spend more time online for this reason are expected to report a better relationship with their parents. This relationship is also of a higher quality when adolescents disclose more information to others and when they are older.

H5. *Adolescents who spend more time online report a lower quality relationship with their parents.*

H6. *Adolescents who spend more time communicating online report a lower quality relationship with their parents.*

H7. *Adolescents who spend more time online for educational purposes report a higher quality relationship with their parents.*

H8. *Adolescents who are more open towards others report a higher quality relationship with their parents than more reserved adolescents.*

H9. *Older adolescents report a higher quality relationship with their parents than younger adolescents.*

2.4 Design and sample description

The ICT and School (ICTS) survey was conducted in the spring of 2008 as part of the joint Youth and Culture research project of VU University Amsterdam and the Netherlands Institute for Social Research | SCP. The 2008 survey is the fifth wave of data collection in the project, which was established in 1998. Each act of data collection is based on previous waves, but the questionnaires have changed over time (Nagel, 2006). Using a stratification method, 197 classes were approached at 32 different high schools taking into account the year and level (low: vmbo; middle: havo; and high: vwo). A total of 167 classes participated (85%) in the survey, with half of the students in each class asked to complete the ICTS questionnaire (Prins & Konijn, 2008). After removing respondents who were younger than 12 or older than 18, or who did not complete the questionnaire seriously or answer the demographic questions, a total of 1,592 students remained.

Several of these 1,592 respondents did not fill in the questionnaire completely. A question that was often left unanswered concerned the educational attainments of the parents. Investigation of the missing values indicates that the omissions are largely random. All the analyses were also performed without the parental education variable. As this did not reveal any differences in the overall outcomes of the analyses, it was decided to proceed with listwise deletion in order to facilitate the comparability of the models' outcomes. Of the 1,026 respondents who answered all the questions, seven reported that they did not have an Internet connection at home. The data were analyzed using the STATA software package 12. Multilevel models with fixed effects were calculated, because of the clustered nature of the data.

Description of variables

Quantity and quality of the parent-child relationship. The quantity of the relationship was measured by the sum of the frequency of spending time together on four types of shared activity: having breakfast, having dinner, watching television, and playing games (not on the computer). The adolescents indicated how often each activity was undertaken on a 6-point scale ranging from 1= *seldom or never* to 6 = *daily*. The quality of the relationship was measured in a similar way with respect to the sum of the frequency of "talking about personal matters (e.g. school, friends)" and "talking about current affairs (e.g. newspaper articles, television)", also on a 6-point scale (ranging from 1= *seldom or never* to 6 = *daily*).

Although the parent-child relationship is measured only from the viewpoint of the adolescent respondents, it appears to be a useful tool for two reasons. Noller and Callan (1986) found that adolescents evaluate this relationship more negatively than their parents, because of their preference for less cohesion and more autonomy and independence. However, the bias in the parents' answers may be even greater, because they appeared more inclined to give socially desirable responses. Furthermore, the negative attitude is, to a certain extent, controlled for by the type of questions; rather than giving a subjective evaluation, the adolescents answered questions about the frequency of activities and discussions with their parents.

Online time. Online time was measured by the respondents' estimates of the daily average number of hours they spend on the Internet. A total of 24 subjects indicated that they spend more than 12 hours online per day. To reduce the skewness of the distribution, these outliers were subsumed under the category of "adolescents spending 12 hours online a day". This adjustment follows the assumption that adolescents spend time in school without their mobile Internet devices and that they sleep for a certain number of hours.

Online and computer activities. The respondents used a 5-point scale (ranging from 1 = *never* to 5 = *(nearly) every day*) to indicate how often they undertake 19 different activities on the computer. Similar to the work of Lee and Chae (2007), the activities were categorized into three different types according to their nature: communication (e.g. chatting, sending emails, participating in discussions on news websites/forums), education (e.g. doing homework, creating tables or graphs), and entertainment or information-related (e.g. editing photos or videos, making music, programming, watching entertainment films, buying something online, downloading music or films, looking up practical information, surfing). Contrary to the categorizations of Lee and Chae (2007), it was decided to include music-related activities under the entertainment heading, because of their unidirectional nature. The average use of each type of activity was then calculated (see Table 2.1). It was found that adolescents who spend more time online also communicate more online, $r = .25$, $p < .01$. They also use the Internet more for entertainment activities, $r = .28$, $p < .01$. Using the Internet for educational purposes did not correlate with the time spent online, $r = -.03$, $p = .33$.

Activities with friends. The adolescents indicated on a 6-point scale (ranging from 1 = *never* to 6 = *daily*) how often they undertake five different activities with friends (chatting together on one computer, sports, playing games not on the computer, making music and going out). A variable was created measuring the average frequency of the time spent with friends.

Openness of adolescents. The openness of the adolescents reflects the extent to which they talk to friends about personal issues, current affairs

and online. The respondents indicated the frequency of these events on a 6-point scale (ranging from 1 = *never* to 6 = *daily*), and a variable was created measuring the average frequency.

Age. The respondents indicated their age, and those under 12 or over 18 were excluded from the analysis.

TABLE 2.1 Teenage reports of family cohesion, Internet use and relationships with friends: descriptive statistics (n = 1026)

VARIABLES	M	SD	RANGE	N OF ITEMS
Quantity of relationship	15.61	3.56	4-24	4
Quality of relationship	7.23	2.90	2-12	2
Online activity: communication	2.83	0.65	1-5	4
Online activity: education	2.73	0.73	1-5	4
Online activity: entertainment/information	2.36	0.65	1-5	11
Activities with friends	3.99	1.27	1-6	4
Openness of adolescents	2.77	0.72	1-6	3
Time online	2.73	2.14	0-12	
Education level of adolescents[b]	2.02	0.02	1-3	
Education level of parents[b]	2.22	0.02	1-3	
Age	14.80	1.46	12-18	
Gender[a]	0.52	0.02	0-1	

[a] Reference category is "male".
[b] Education level: 1 = *low*, 2 = *middle*, 3 = *high*.

Source: ICTS (2008)

Control variables. Gender was coded as 0 = *boys* and 1 = *girls*. The *adolescents' educational level* was based on the three Dutch education levels (1 = *low* (vmbo), 2 = *middle* (havo) and 3 = *high* (vwo)). Compared to the general Dutch school population, the middle level is slightly overrepresented in our data, while the lower level is somewhat underrepresented (CBS, 2009). The *educational level of the parents* served as a proxy for socioeconomic status, as previous studies have indicated that parents

who are more highly educated and have a higher socioeconomic status tend to be more involved in their children's lives (cf. Amato & Rivera, 1999; Yeung et al., 2001). The respondents indicated the educational attainments of both of their parents. One variable of parental education was created by taking the highest level attained by either the mother or the father. The nine levels were recoded into three: 1 = *low* (ranging from no education to junior general secondary education (mavo/mulo)); 2 = *middle* (middle and higher secondary education (havo and vwo), and senior secondary vocational education (mbo)), and 3 = *high* (higher professional education (hbo) or university education (wo)).

2.5 Results

The quantity and quality of the relationships between adolescents and their parents (cf. Larson et al., 1996; Lee & Chae, 2007) are two different aspects of family cohesion. Their moderate correspondence in the study in this chapter, $r = .35$, $p < .01$, indicates that they are correlated, meaning that adolescents who spend more time with their parents also talk more often to them. This moderate correlation also signifies that the two elements are not identical in what they measure. This distinction between the quantity and quality of the parent-child relationship is also visible in bivariate comparisons of different age groups and genders: shared family time declines with age, $F(6, 1019) = 15.36$, $p < .01$. There are also significant differences between adolescents of different ages in terms of the quality of the relationships, $F(6, 1024) = 3.16$, $p < .01$, although there is no clear pattern visible in these differences. Furthermore, although girls spend less time with their parents than boys, $t(1024) = 2.29$, $p < .05$, they discuss personal issues and current affairs with them more often, $t(1024) = -2.30$, $p < .05$. The difference in the quality of the relationship is due to the fact that girls discuss personal issues with their parents more frequently than boys, $t(1024) = -4.37$, $p < .01$. These findings are in line with previous research (cf. Larson et al., 1996).

Quantity of the relationship between adolescents and their parents

The multilevel regression analysis indicates that the quantity of the relationship between adolescents and their parents is negatively related to the time that the former spend online. Adolescents who use the Internet more often report spending less time with their parents, $b = -0.16$, $p < .01$. This outcome endures after controlling for the different online activities that adolescents undertake, and therefore confirms the expectation of a time displacement effect of Internet use and shared family time. In particular, Internet use appears to displace what Lee and Chae (2007) describe as passive shared family time. Watching TV, $r = -.19$ (Spearman rank), and having breakfast together, $r = -.11$ (Spearman rank), are particularly negatively correlated with Internet use. It should be noted that it is not possible to establish the causal direction of the effect, because of the cross-sectional nature of the data.

Although spending more time together is negatively related to the parent-child relationship, devoting more time to online education and learning activities is positively related to the quantity of this relationship. Adolescents who use the Internet more for educational purposes spend more time with their parents, $b = 0.73$, $p < .01$. A possible explanation for this is that online educational activities are a proxy for adolescents' attitudes: those who are more focused on their educational achievements may attach more value to family time or the relationship with parents. There are no significant differences between adolescents who frequently use online communication tools and those who do so less in terms of the time they spend with their parents, meaning that Hypothesis 2 must be rejected. Moreover, using the Internet for entertainment does not affect shared family time.

Contrary to the expected displacement effect formulated in Hypothesis 4, spending more time with friends is positively related to the time spent with parents, $b = 0.40$, $p < .05$. As shared activities with friends are a possible measure of sociability or the involvement of adolescents with their social network (cf. Stepanikova, Nie & He, 2010), it can be concluded that more sociable adolescents spend more time with their parents. However, the

openness of adolescents, or the extent to which they talk to friends, does not influence family time.

The multilevel regression analysis confirms the findings of the bivariate analysis of age and gender. After controlling for other influences, older adolescents and girls spend less time with their parents than younger adolescents and boys (see Table 2.2), confirming Hypothesis 3. Meanwhile, adolescents' level of education is not significantly related to the quantity of the parent-child relationship, indicating that after controlling for the other factors, lower-educated adolescents do not spend more or less time with their parents than those with a higher education. Furthermore, contrary to previous findings that higher-educated parents spend more time with their children because they are more concerned about their individual and educational development (Guryan, Hurst & Kearny, 2008; Yeung et al., 2001), we did not find a significant effect of the educational attainments of parents: there were no differences in family time between the adolescents with higher or lower educated parents.[7] Overall, the model explains a significant, moderate proportion of the differences in the quantity of the relationship between adolescents and their parents, $R^2 = .12$, $F(12, 983) = 7.59$.

7) The multilevel regression analysis was also performed without either of the education level variables, as their moderate correlation, $r(1024) = .32$ (Spearman rank), might have interfered with the results. This made no difference to the significance of the effects.

TABLE 2.2 Multilevel regression analysis with fixed effects for the dependent variables of the quantity and quality of family relationships (unstandardized regression coefficients and standard errors; n = 1026)

	QUANTITY		QUALITY	
	B	SE B	B	SE B
Gender	-.737**	.23	-0.005	.18
Age	-0.585**	.10	0.077	.08
Education level of adolescents				
Low (ref.)				
Middle	0.216	.43	-0.279	.32
High	0.243	.49	-0.285	.37
Education level of parents				
Low (ref.)				
Middle	0.142	.48	0.167	.22
High	0.291	.29	0.234	.23
Time online	-0.160**	.06	-0.186**	.04
Online activity: communication	-0.090	.20	0.241	.15
Online activity: education	0.730**	.17	0.351**	.13
Online activity: entertainment	-0.240	.22	-0.001	.17
Activities with friends	0.403*	.17	-0.187	.13
Openness of adolescents	0.124	.09	1.017**	.07
R^2	.12		.24	
Intraclass correlation (ρ)	.06		.04	

* p < .05. ** p < .01.

Source: ICTS (2008)

Quality of the relationship between adolescents and their parents

As with the quantity of the relationship, the time spent online by adolescents negatively influences the quality of the relationship with their parents (see Table 2.2), confirming Hypothesis 5. This finding contradicts the argument of Lee and Chae (2007) that using the Internet only displaces passive shared family time, as the adolescents in our study who spend more time online reported communicating less with their parents face-to-

face. In line with the time displacement hypothesis as it was formulated in the late 1990s, we found that more Internet use reduces offline social contact (Kraut et al., 1998). Another possible explanation for this finding is that disputes arise between adolescents and their parents over the duration of Internet use when the former spend more time online (Mesch, 2006b). Since the data is cross-sectional, this causality could also operate in the reverse direction: adolescents who have a poor relationship with their parents may spend more time online as a result.

Using the Internet more for educational purposes is positively related to the quality of the parent-child relationship, confirming Hypothesis 7. Spending time online for homework is in line with parents' expectations and therefore improves the quality of the parent-child relationship. It could also be the case that adolescents who are more motivated to spend time on learning activities value their relationship with their parents more. The extent to which adolescents use the Internet for entertainment and communication does not influence the quality of the parent-child relationship. Indeed, contrary to the expectations formulated in Hypothesis 6, we found no significant differences in the quality of the parent-child relationship between adolescents who spend a lot of their online time communicating and those who do not (see Table 2.2). This result is contrary to arguments that online communication satisfies and displaces the need for communication with parents. Adolescents appear to value the sharing of current affairs and personal matters with their parents. They may also communicate with their parents about matters that they do not discuss online, or even communicate online with them. As the adolescents in this study were not asked about who they communicate with online, we cannot evaluate this latter explanation.

Following the prediction formulated in Hypothesis 8, disclosure to or openness with friends is related to the quality of the relationship with parents. Adolescents who are more open to their friends also discuss more personal issues and current affairs with their parents (see Table 2.2). This openness is the most important predictor in the model of the quality of the relationship between adolescents and their parents. Indeed, without this variable in the model, the explained variance drops drastically from R^2 = .24, $F(12, 983) = 25.81$, to R^2 = .08, $F(11, 984) = 7.30$.

The multilevel regression analysis confirms the finding of the bivariate analysis that there is no linear relationship between adolescents' age and the quality of their relationship with their parents, meaning that Hypothesis 9 must be rejected. Furthermore, after controlling for other influences, there are no gender differences and no differences between adolescents with higher and lower educated families in terms of the quality of the parent-child relationship. The differences in the quality of the relationship are explained by the extent of the adolescents' Internet use and the time spent online on education, with the lion's share of the differences being explained by the openness of these youngsters. This model explains a larger proportion of the differences in the dependent variable $R^2 = .24$, $F(12, 983) = 25.81$ than is the case with the quantity of the relationship, $R^2 = .12$, $F(12, 983) = 7.59$.

2.6 Conclusion

In this chapter, we investigated how adolescents' Internet use is related to the quantity and quality of the parent-child relationship. Contrary to most of the previous research in this field, a networked household perspective was used, which regards the family as a network and emphasizes the relevance of including the social networks of adolescents. Our results underlined the central assumption of the networked household perspective, namely that adolescents' networks extend beyond the nuclear family to their network of friends. Rather than displacing the shared family time and communication with their parents, this extended social network is positively related to the parent-child relationship. The quantity and quality of this relationship is negatively related to adolescents' online time, as those who spend more time online report having a poorer relationship with their parents. However, the results indicate that this association is not unidirectional, as the negative influence of the time adolescents spend online is mitigated by their online activities. That is, though spending more time online is associated it a worse relationship with their parents, adolescents who spend more time online on school indicate a better relationships with their parents. This finding shows the relevance of separately measuring online time and online activities.

The negative association between spending more time online and the quantity and quality of the parent-child relationship is in line with a time displacement effect of adolescents' online time. Since adolescents presumably devote only a limited proportion of their online time to their parents and use the Internet when they are at home, spending more time online might be at the cost of spending time with and talking to their parents (cf. Lee & Chae, 2007; Mesch, 2003). The rejection of the time displacement hypothesis in research on social relationships with friends may thus be explained by the large amount of time that adolescents spend on communicating and gaming with friends online (cf. Valkenburg & Peter, 2009b; Vergeer & Pelzer, 2009).

The negative influence of adolescents' online time on family cohesion is mitigated by their use of the Internet for school. Devoting time online to educational activities may reduce family conflict or could be a proxy for adolescents' attitudes. Those who consider school to be important might value the relationship with their parents more and therefore spend more time with and talk more to them.

Another displacement hypothesis, namely the functionally equivalent hypothesis, which states that Internet use displaces functionally equivalent activities, was also investigated. In line with previous findings, Internet use appears to displace passive activities with parents, such as watching TV (cf. Lee & Chae, 2007). Our findings do not indicate that online communication displaces offline communication with parents. Moreover, openness towards friends is not at the expense of disclosures and openness to parents. We only found a functional displacement of passive activities (Internet use displacing time spent watching TV together), and not in terms of communication between adolescents and parents being displaced by online communication or communication with friends. Instead, openness towards friends is positively associated with the quality of the parent-child relationship.

Adolescents' Internet use is not the most important factor for explaining differences in family cohesion. Their age and gender explain most differences in the shared time or quantity of the parent-child relationship, with

older adolescents and girls spending less time with their parents than their younger counterparts and boys. The quality of the parent-child relationship is strongly related to the openness of adolescents towards friends; those who discuss more with their friends appear to also disclose more to their parents. The relevance of including adolescents' social networks is also clear with respect to the quantity of the parent-child relationship. Spending more time with friends, which is sometimes described as "sociability" (Stepanikova et al., 2010), is associated with spending more time with parents. These social network indicators may also reflect adolescents' personality characteristics, thus highlighting the importance of considering individual differences in personality in future research on family cohesion.

This study indicates the relevance of the networked household perspective for analyzing current families. Although the nuclear family is still important for safety and socialization, especially for young children, relationships with individuals outside the family cannot be ignored. The networked household perspective appears to be especially relevant for homes with adolescents, who create and maintain their own social networks and rely less on their parents. Although Kennedy and Wellman (2007) and Rainie and Wellman (2012) do not discuss the differences between households with older and younger children, it seems plausible that families with the former function less as a network and possibly more as a family system. Young children certainly rely more on their parents and maintain fewer relationships with non-family members. Moreover, they may need some assistance from their parents in their use of new communication technologies. However, the relationships between parents and young children may still be characterized as a network, as they both maintain their own and shared networks and communicate face-to-face and via new communication technologies about their work and private schedules. For future research on families with adolescents, we argue that families are better framed as a network of individuals who are connected with each other and people from outside the family than as a closed system.

2.7 Discussion

Our study has some limitations that should be taken into account for further research. A first disadvantage is the cross-sectional nature of the data. Although the findings are in line with a time displacement effect of family cohesion by Internet use, it is not possible to establish the causal relationship. Based on previous research and theory, the expected relationship is that Internet use influences family cohesion. Arguably, the causal relationship could also operate in the opposite direction: adolescents who do not have a good relationship with their parents might be more drawn to using the Internet. Longitudinal data would be needed to clarify this. The findings regarding the different online activities do suggest that the negative influence is mainly related to the online time itself and not to other aspects of Internet use. To confirm this, more information is needed about the frequency and content of adolescents' online communications with their friends and parents. Furthermore, the importance of the two variables about adolescents' friendships, which to some extent reflect personality traits, implies that it would be useful to include a good measurement of these characteristics.

For future research, it may be relevant to extend the measurement of family cohesion. In this study, the concept is measured by the dimensions of the quantity and quality of the parent-child relationship (cf. Bengtson, 2001; Larson et al., 1996; Lee & Chae, 2007; Olson, 2000). The differences in the findings in this regard indicate that family cohesion covers more than family members spending time together. Although these two factors are likely to be most influential in research on Internet use within families, it may be interesting to investigate other dimensions such as shared values, norms and opinions, as well as feelings of intimacy (Bengtson, 2001; Olson, 2000). It has to be noted that these dimensions are likely to be reflected in the quantity and quality of parent-child relationships, as adolescents sharing fewer values, norms and opinions may spend less time and communicate less with their parents. Future studies could also increase the number of items used to measure the quantity and quality of the parent-child relationship; the survey used for this study covers only a limited set of shared activities and types of communication. However,

a benefit of the survey questions used is that their formulation promotes more objective answers about the parent-child relationship than questions about how good adolescents *think* this relationship is or whether they believe that Internet use has reduced the amount of shared time (cf. Lee & Chae, 2007).

Further research is also needed to investigate other potentially influential factors for the parent-child relationship. An adequate part of the quality of the relationship between adolescents and their parents was explained in this study, but not the differences in its quantity. This lack of explanatory power of the model might be due to the limited family characteristics available in the data, for instance family composition and family size. Adolescents from divorced or large families may spend less time with their parents, although Mesch (2003, 2006b) found no differences in shared time when different marital statuses were taken into account. Another factor related to the family is parental concern about what their children encounter online. In households with worried parents, there may be more conflict about the time spent online by their children and what this involves (Livingstone & Helsper, 2008).

It may be that sharing time together is being measured in an outdated way for today's networked families. The rise of Smartphone use in particular allows individuals to play games and communicate online without being in the same offline space. Although one could argue that these games and communication are superficial, they may provide a certain feeling of closeness and encourage conversations when parents and children do see each other, thus improving the relationship (Christensen, 2009; Rainie & Wellman, 2012). Since the data were collected in 2008 when Smartphones were not widely used, these issues are less relevant for the current study, but deserve more attention in future research.

CHAPTER 3

Adolescents' social inclusion in peer groups

Abstract
Previous studies have indicated that economic resources are related to adolescents' online engagement and social participation. Since a lower online participation rate may hinder their offline inclusion in peer groups even further, this study incorporated the factors of social participation, the possession of devices and differences in Internet use to investigate whether involvement in online social activities and the possession of devices counterbalance the negative social effects of poverty. In addition to previous studies, differences between ethnic groups were also investigated. The results of a large-scale survey (n = 950) among Dutch adolescents aged 12-17 showed that living in a low-income household is related to less participation in formal leisure activities, but not directly to less inclusion in peer groups. The inclusion in such groups is specifically lower among adolescents with non-Western origins. However, this is compensated for by their engagement in online social activities. Moreover, in contrast to previous research, we did not find that devices function as status symbols for adolescents.

3.1 Introduction

In today's information society, adolescents living in low-income households seem to be especially disadvantaged, and experience more difficulties with social participation. Previous research has established, for example, that these young people are more often subject to bullying or exclusion from social groups, while their lack of financial resources inhibits participation in formal leisure activities such as sports or outings organized by school (Davies, Davis, Cook & Waters, 2008; Ridge, 2002, 2011). In addition, young people living in low-income households often have fewer opportunities to access the Internet, because they have less

media to their disposal or a worse Internet connection (Madden, Lenhart, Duggan, Cortesi & Gasser, 2013). This reduced online presence may have direct and major effects on social participation in childhood. Since offline conversations are continued online (Reich et al., 2012), not being able to engage in them or take part in online activities with friends hinders participation in peer groups. In addition, as Hargittai and Hinant (2008) have demonstrated, using the Internet less impairs the development of digital skills and may consequently hamper future participation in the information society. However, when young people are able to interact socially online or participate in online communities, this may help to counterbalance the negative social effects that often come with poverty.

The impact of economic resources on adolescents' social relationships has been established by several studies (see Attree, 2006; Redmond, 2008; Ridge, 2002; Sletten, 2010). Furthermore, Olsson (2007) has found that the possession of certain types of media is positively related to social participation. Studies on the digital divide among children and young people pay specific attention to the effects of differences in the education level and socioeconomic status of a household on youngsters' Internet use and online activities (cf. Lee, 2008; Livingstone & Helsper, 2007). However, the current research is the first study to investigate both to what extent social participation is related to adolescents' Internet use and online activities, and how this differs among adolescents from various socioeconomic groups. This allows us to examine the extent to which online social opportunities counterbalance the negative social effects of poverty.

The study focused on the Netherlands, which is a country with relatively low poverty levels and high Internet diffusion (CBS, 2013; Eurostat, 2010, 2013). Unique, nationally representative data are used to investigate how poverty and the Internet use of adolescents are related to their social participation. Although the United Kingdom's relatively high level of poverty among children and young people compared to other European countries has raised awareness and attracted scholarly attention (cf. Attree, 2006; Redmond, 2008; Ridge, 2011), research in Norway and Sweden shows that the problem of poverty and social exclusion among adolescents is also prevalent in countries with relatively low levels of childhood poverty

(Olsson, 2007; Sletten, 2010). By using nationally representative data, the current study provides general insight into the social participation of adolescents from different socioeconomic groups and their Internet use, contributing to the research field that has predominantly used qualitative methods and case studies and has focused especially on the UK (Attree, 2006; Ridge, 2011). In addition, the data from the Netherlands allow us to investigate a particularly vulnerable group that has proved difficult to include in research: ethnic minorities (Attree, 2006; Redmond, 2008; Ridge, 2011). Although the risk of experiencing an accumulation of deprivation is especially prominent among this group, it has rarely been included in qualitative and quantitative studies about social exclusion (Attree, 2006; Redmond, 2008; Ridge, 2002, 2011).

The aims of this study are twofold. Firstly, by examining a country with relatively low levels of childhood poverty using nationally representative, large-scale data, we provide more insight into the relationship between poverty and social participation among adolescents with different ethnic backgrounds. Secondly, also investigated is whether Internet use and new communication technologies provide an alternative or a counterbalance to the harmful impact of poverty on adolescents' social participation, or whether they reinforce these effects. The main question in this chapter is:

To what extent can their Internet use compensate for the limited social participation of disadvantaged Dutch adolescents?

3.2 Social exclusion and childhood poverty

Social exclusion and poverty

The social participation of adolescents from low-income households is an issue that forms part of the broader research field of social exclusion and poverty. The latter two concepts are often regarded as synonyms or, at the very least, strongly interdependent (EC, 2010; Silver, 1994). To embed our research in previous theorizing, the following section briefly discusses the concepts of social exclusion and poverty, and then ends with a

definition of both. From this particular section, it follows that poverty is a circumstance that may result in social exclusion. As a consequence, these concepts must be theoretically distinguished.

Social exclusion is a relational notion, as there is no clearly defined cut-off point of exclusion, which means that individuals are excluded in relation to others. That is, they are excluded from, for instance, something like a social group (Jehoel-Gijsbers, Smits, Boelhouwer & Bierings, 2009). This exclusion could be a conscious choice, but is often the result of circumstances or the environment in which the individual engages (Redmond, 2008; Schuyt, 2006). Furthermore, the concept is multidimensional, although there is some disagreement about what these dimensions reflect (Foley, 2004; Jehoel-Gijsbers, 2004; Jehoel-Gijsbers & Vrooman, 2007); they are considered to be both material (e.g. a lack of material resources) and immaterial (a lack of social integration) (cf. Bhalla & Lapreye, 1997; Jehoel-Gijsbers, 2004; Jehoel-Gijsbers et al., 2009; Ridge & Millar, 2000), and can be categorized into two main traditions (Bhalla & Lapreye, 1997; Jehoel-Gijsbers, 2004). The first of these traditions originates from French sociology, and emphasizes the role of state institutions in exclusion and social solidarity. Social exclusion is regarded as "[…] a failure of the Republican State in protecting the 'cohesion of the society'" (Bhalla & Lapreye, 1997: 414), and refers to immaterial social and cultural integration (Jehoel-Gijsbers et al., 2009). The second tradition, i.e. the Anglo-Saxon school, is based on a long tradition of poverty research, and regards social exclusion as resulting from competition in the market, the distribution of resources or voluntary choice (Bhalla & Lapreye, 1997; Jehoel-Gijsbers, 2004; Jehoel-Gijsbers et al., 2009). From this perspective, social exclusion refers to material deprivation and the unequal access to basic social rights (Jehoel-Gijsbers et al., 2009; Vrooman & Hoff, 2013).

In summary, social exclusion refers to a situation in which individuals are prevented from participating fully in society. The four different dimensions of social exclusion are not only socioeconomic, such as material deprivation and unemployment (cf. EC, 2010), but also social-cultural, which includes social participation and normative integration (Bhalla & Lapreye, 1997; Jehoel-Gijsbers et al., 2009; Vrooman & Hoff, 2013). Jehoel-Gijsbers

et al. (2009) regard an individual as socially excluded when he or she is excluded on two or more dimensions.

Poverty is a situation where individuals do not have sufficient resources, including income, with which to attain a socially acceptable standard of living (Eurostat, 2010; Jehoel-Gijsbers et al., 2009). Accordingly, poverty is a state that could have an influence on social exclusion (cf. Vrooman & Hoff, 2013). Poor individuals are at greater risk of health problems and tend to live in inadequate housing, which may inhibit their participation in, for instance, formal leisure activities and social groups (Davies et al., 2008). Furthermore, Case and Paxson (2006) found that growing up in poverty increases the risk of health problems and a lack of economic success in adult life. Guiaux (2011), meanwhile, found that individuals who grow up in a poor family more often experience material deprivation and difficulties in social participation during adulthood.

The focus on children in social inclusion policy and research

The issue of social exclusion gained attention in both policy and research in the 1990s, as reforms and national policies had increased the risk of exclusion for people over previous decades, leading to both the EU and national governments broadening their policy aims about fighting poverty by averting social exclusion (Ridge, 2002; Vrooman & Hoff, 2013). From the monitoring of poverty and social exclusion, it follows that the groups that have a higher risk of the accumulation of deprivation are women, young people, migrants, single parents and the lower-educated (Eurostat, 2013). A further exploration of children's poverty in the Netherlands indicates that the risk of poverty is especially high among children living in single-parent families with their mothers and somewhat higher in the children of non-Western immigrants (SCP/CBS, 2013).

Although fighting poverty had been high on many policy agendas, childhood poverty only received attention from the early 2000s onwards (Ridge, 2002). In the Netherlands, for instance, poverty among children was first mentioned in policy strategies in 2006 (Roest, Lokhorst & Vrooman, 2010). In a similar vein, research on poverty and social exclusion only focused on adults until the 1990s. The adult-centred perspective

resulted from the conceptualization of children as "passive and developmentally incomplete" in both research and policy on social exclusion and poverty (Redmond, 2008: 10; Ridge, 2002). In the late 1990s, a change in perspective concerning the agency of children increased the widespread adoption of a child-centred viewpoint in this field, with children being regarded as autonomous social actors who are best able to describe their feelings and experiences (Backett-Milburn, Cunningham-Burley & Davis, 2003; Ridge, 2002; Ridge & Millar, 2000).

Although this shift in perspective is apparent in the research, most definitions still refer to the social exclusion of adults, covering dimensions that children are not involved in or are unable to improve (Ridge & Millar, 2000). Children cannot, for instance, apply for social benefits, and they do not have their parents' power to change the family's financial circumstances (Olsson, 2007). Building on previous work by Jehoel-Gijsbers (2009) and Roest et al. (2010), Vrooman, Hoff and Guiaux (forthcoming) have constructed a measurement of social exclusion among children in the Netherlands.

3.3 Social participation of adolescents from low-income households

The issue of adolescents' social exclusion is especially pressing when it comes to a lack of social participation. Contact with peers is very important for inclusion and well-being during childhood and later in life (Peruzzi, 2014; Ridge & Millar, 2000), while participation in leisure activities and peer groups is vital for the development of a social identity and social skills, and to promote a feeling of belonging and security. Adolescents also learn about other people and themselves through social interaction (Olsson, 2007; Ridge & Millar, 2000; Ridge, 2011), and being unable to participate in school outings, social activities or peer groups during and after school hours leads to feelings of exclusion (Redmond, 2008; Davies et al., 2008).

Given their relevance for social inclusion and development, it is necessary to investigate how adolescents' social participation is differentiated by their socioeconomic status. Studies have shown that children and adolescents from low-income households participate less in both formal leisure activities and peer groups. Involvement in sport or hobbies is hampered by a lack of money or affordable transport (Attree, 2006; Jehoel-Gijsbers, 2009; Ridge, 2011; Roest, 2011), while the lack of financial resources may also inhibit participation in school trips and the purchase of essential school materials such as books and uniforms (Davies et al., 2008; Ridge, 2011). Not possessing the "right" clothes, whether uniforms or otherwise, also limits children's participation in and belonging to peer groups (Attree, 2006; Redmond, 2008). Furthermore, children and adolescents living in poor conditions and overcrowded houses are less likely to invite friends to their home (Davies et al., 2008; Ridge, 2011; Sletten, 2010). Some adolescents from poor families are also aware of their parents' financial struggles and apply coping strategies like not asking for costly items (Attree, 2006). This also sometimes results in a conscious self-exclusion from social activities and school, and may even lead to delinquent behaviour by lowering children's own expectations (Attree, 2006; Redmond, 2008).

These findings indicate that poverty has a major influence on adolescents' social participation. The research that has been conducted is predominantly from the UK and is often case-based, focusing on specific experiences and circumstances. The current study contributes to the research field by using nationally representative data from the Netherlands, which also includes adolescents with a high risk of the accumulation of deprivation, i.e. those from ethnic minorities and those living in a single-parent family. The study also addresses a factor that has become increasingly important for children's social inclusion: their social participation in the online world.

3.4 Digital divide and adolescents' Internet use

Differences in Internet use

In the current information society, the use of new technologies and digital skills are a prerequisite for future participation and inclusion (Valentine, Holloway & Bingham, 2002). Consequently, differences in use receive attention in both academia and policy.

The digital divide used to be tangible in the differentiation between those with access to the Internet and those without. Individuals from lower socioeconomic groups were overrepresented among the "have-nots" (Foley, 2004; Van Ingen, Duimel & De Haan, 2007), but the current, near saturation of Internet access in households has exposed differences in Internet use other than mere access. The digital divide is today reflected in (autonomy of) use, motivations, digital skills, social support and reasons for using the Internet (DiMaggio & Hargittai, 2001; Van Dijk, 2006). This conceptualization of the digital divide differentiates several aspects of Internet use. Although findings differ, it seems that boys use the Internet more for entertainment and games than girls (Lenhart, Purcell, Smith & Zickhur, 2010), recent studies have found little or no differences in the extent to which girls and boys use the Internet for communication purposes. However, girls communicate more to maintain existing social networks, while boys use communication applications more to form new ties (Subrahmanyam & Greenfield, 2008). Studies on national populations indicate that the less well educated, older people, the economically inactive and ethnic minorities are the groups that lag behind in terms of the level of their digital skills (Sinclair & Bramley, 2011; Van Ingen, et al., 2007).

Although the majority of households in affluent countries have Internet access in their homes, often through several (mobile) devices, there are still groups that are not connected. This could, of course, be a matter of choice (cf. Eynon & Geniets, 2012), but this is certainly not always the case. For families struggling to meet basic needs, new communication technologies are not a priority. Although the main reason given by non-users seems to be that they are not interested in using the Internet (Zickuhr, 2013; CBS, 2013), Powell, Bryne and Daily (2010) found that

low-income Americans do value having access to broadband to look for jobs, for access to online public services and for educational purposes. Underlying the non-interest in the Internet might thus be the higher priority of meeting basic needs.

In addition, digital divide research has predominantly examined differences in online participation, use and skills as an outcome, and much less often the effects of the digital divide on an individual's participation in society (De Haan, 2004; Wei & Hindman, 2011) or the mutual influence of offline and online participation (Helsper, 2012). Accordingly, this study investigated whether adolescents' Internet use balances, or possibly even promotes, individual differences in the context of social participation and poverty (see Figure 3.1).

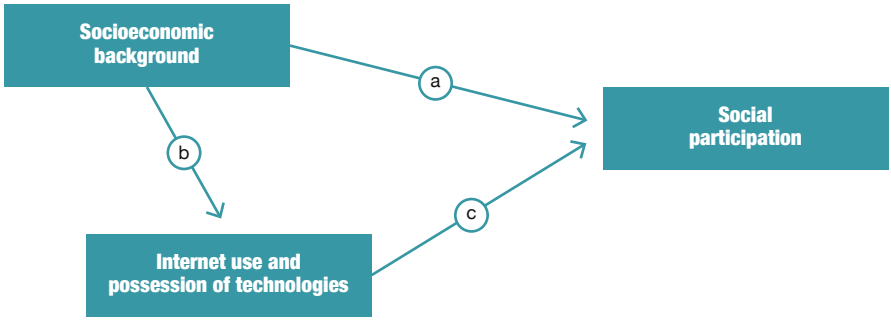

FIGURE 3.1 Conceptual model of the relationships between socioeconomic background, Internet use and the possession of technologies and social participation

Technologies as status symbols and tools for social inclusion

In research on social exclusion, communication technologies are often regarded as economic assets that indicate material deprivation (cf. Whelan & Maître, 2012). For adolescents, the possession and use of new communication technologies may have two different consequences for their social participation. Firstly, Olsson (2007) has shown that "capital goods" like a personal computer, TV or mobile phone are economic assets to which individuals and social groups assign symbolic value.

Possessing these highly-valued goods results in a higher rate of social participation on the part of adolescents. This act of distinguishing oneself from others through consumption and taste is captured by Veblen's (1953) notion of conspicuous consumption and Bourdieu's (1979/1989) theory of distinction. Not possessing the material and symbolic goods that are part of youth culture is experienced by adolescents as a shortfall, and this inhibits their social participation (Attree, 2006; Ridge, 2011; Sletten, 2010). This leads to the first hypothesis:

> ***H1.*** *Adolescents who possess certain technologies are more likely to be included in peer groups.*

Secondly, the use of technologies and online activities may affect adolescents' inclusion in peer groups. Online gaming and communication are part of youth culture, with adolescents participating in social networking sites, creating online content, playing games and sending each other messages or pictures (Hargittai & Walejko, 2008). Since adolescents' online communication is mainly with their offline peer group, and as their offline and online social networks largely overlap (Gross, 2004; Reich et al., 2012), their online participation promotes their inclusion in peer groups. Valkenburg and Peter (2009b) found that the use of instant messaging increases the quality of friendships. Consequently, being able to take part in online social chat and other activities like games, which are part of youth culture, could balance the negative effects that these adolescents may experience because of their socioeconomic background. However, this also suggests that not being able to participate in online peer-activities results in exclusion from social groups. The second hypothesis is therefore formulated as follows:

> ***H2.*** *Adolescents' participation in online social activities promotes their inclusion in peer groups.*

Previous research has shown that adolescents living in low-income or deprived households, among which ethnic minorities are overrepresented (SCP/CBS, 2010), experience difficulties in participating socially (Redmond, 2008; Ridge, 2002, 2011). Participation in peer groups may be

even more difficult for the young people living in these households, due to their lack of new communication technologies, reduced Internet access, and their use and lack of digital skills. As a consequence, economic and social aspects may accumulate for adolescents from low-income households. As a result, the third hypothesis is:

> ***H3.*** *Participation in peer groups is lower among adolescents from low-income households, which include ethnic minorities, due to their lack of status symbols and online presence.*

3.5 Design and sample description

The survey data was obtained in the autumn of 2008 as part of the Poverty and Social Exclusion Project of the Netherlands Institute of Social Research. The Ministry of Social Affairs and Employment commissioned this project with a view to both gaining insight into poverty and social exclusion among children in the Netherlands and monitoring policy measures taken to combat the latter by the Ministry.[8)] The survey data used for this study constitutes the first wave of data collection, which was followed by a second wave in 2010 that focused specifically on changes in formal social participation (Jehoel-Gijsbers, 2009; Roest et al., 2010).

A nationally representative, random sample of almost 4200 children was drawn from a database containing the respondents who receive welfare benefits, and from one containing the financial details of Dutch people in general.[9)] A total of 2202 children aged 5-17 and one of their parents participated.[10)] Poor children are overrepresented in the sample, and a correction population weight is therefore used in the analyses. The interviews

8) These policy measures are the extra financial resources assigned to municipalities in that same year in an attempt to increase the social participation of children from low-income households.

9) For more information about the sample selection and data, see Jehoel-Gijsbers (2009) and Roest et al. (2010)

10) Some deprived urban areas were mistakenly excluded from the random sampling. However, a follow-up study did not indicate any important differences for the variables used in this study (Roest, 2011).

were conducted face-to-face in family homes. When questions were regarded as sensitive or very personal, for instance those about bullying or online activities, children were asked to answer them on the interviewer's laptop. The interviews lasted for approximately 1.5 hours. As the questions for the 5-11 year-olds were adjusted in accordance with their cognitive capacity and behaviour, there is less information about their online activities and social participation. As a consequence, it was decided to focus on the adolescents aged 12-17 (n = 950) (Jehoel-Gijsbers, 2009; Roest et al., 2010). The data were analyzed with Stata version 12 using population weights.

Description of variables

Social participation. Two types of social participation are investigated in this chapter: adolescents' involvement in social relationships and their formal participation in leisure activities. The measurement of social participation is based on previous studies of adults in the Netherlands and research by Jehoel-Gijsbers (2004, 2009), adjusted to the circumstances and understanding of children and young people.

Several questions addressed the adolescents' social activities with friends, with four items forming one scale (polychoric factor analysis: EV = 2.33; loadings between .64 and .83) with good reliability (Cronbach's α = .76). These items are: "Do you invite friends over to your home?" "Do you go to your friends' homes?" "Do you attend your friends' birthday parties?" (1 = *yes, often*, 2 = *yes, sometimes*, 3 = *never*), and "Did you invite friends to your own birthday?" (1 = *yes*, 2 = *no*). The factor scores were used to create a new variable "participation in peer groups".

Formal social participation is measured as a sum-score of different formal leisure activities that the adolescents participated in. Firstly, the respondents were asked about the number of different sports they get involved in by showing them an extensive list of various sports. A separate question asked whether they took swimming lessons. Secondly, they were asked about cultural activities, for example whether they are a member of a club, the boy/girl scouts, an orchestra or a choir. The variable "formal social participation" was then created (ranging from 1= *no activity* to 4 = *3 or more activities*).

Income and poverty. To calculate the influence of poverty, we used a continuous variable of household income and a cut-off point of whether children are regarded as living in a poor family. Household income is treated as a family's annual standardized disposable income on December 31st 2008, as registered by the Tax and Customs Administration. This standardized, disposable income is the total annual household income minus tax and benefits and controlled for the number of adults and children. The natural logarithm of the income variable is used in the analyses to adjust the skewness of the variable. A variable of household poverty was also calculated by taking the cut-off point of an annual standardized, disposable income of €961 a month (1 = *poor household*, 0 = *not poor household*), which is the definition developed by the Netherlands Institute for Social Research| SCP and Statistics Netherlands| CBS (2010). Their studies indicate that this level of monthly income was just enough for families to make ends meet in 2008. After weighing the ASOUK data, 5% of the adolescents' households had an income below this poverty threshold.

In addition to household income, adolescents' experience of poverty can be lessened if they take a weekend, evening or holiday job (Sletten, 2010). This may enable them to buy consumption goods themselves or even contribute to the family income. It is presumed that adolescents have more autonomy over how they spend money earned from their own jobs than is the case with pocket money. Accordingly, rather than adding a cash margin or pocket money to the analyses (Sletten, 2010), a binary variable was included concerning whether the adolescents had a part-time job in addition to school (1 = *yes*, 0 = *no*).

TABLE 3.1 Descriptive statistics (weighted means and standard deviations; n = 950)

	M	SD	RANGE	N OF ITEMS
Social participation	2.52	0.52	1-4	4
Formal social participation	2.16	.90	1-4	4
Poverty	.04	.20	0-1	
Income	10.06	.4		
Part-time job	0.39	0.49	0-1	1
Computer time	10.72	7.57	0-60	1
Number of devices	2.38	0.69	1-3	3
Number of computers/laptops	2.35	0.76	1-3	1
Online activities				
Social activities	3.34	0.98	1-5	4
Games	3.32	1.57	1-5	1
Homework	3.44	1.37	1-5	1
Other activities	2.73	1.00	1-5	5
Gender[a]	0.48	0.50	0-1	
Age	14.46	1.68	12-17	
Education level of parents	6.24	2.10	1-9	
Number of children in household	2.46	0.98	1-6	
Single-parent household	0.14	0.35	0-1	
Non-Western immigrant	0.13	0.33	0-1	

[a] Reference category is male.

Source: ASOUK (2008)

Internet access. In 2008, the Internet was predominantly accessed through personal computers and laptops. Nearly all the respondents indicated that they use such a device (99%), with very few having no personal computer or laptop at home (0.3%). Some household members do, however, have to share a computer, as 18% had just one computer at home, 30% two, and 52% three or more. The variable "number of computers/laptops" was created with three categories for the analysis (1 = *no or one computer/laptop*, 2 = *2 computers/laptops*, 3 = *3 or more computers/laptops*). The adolescents were also asked about whether they possessed

other devices like a game console, MP3 player and mobile phone. The variable "number of devices" was then created (1 = *no or one device*, 2 = *2 devices*, 3 = *3 devices*).

Internet use and online activities. Adolescents were asked to indicate the number of hours they spend on average per week on the computer. Answers were given between nought and 60 hours a week. They also indicated how often they participated in nine different activities on a 5-point scale, ranging from 1 = *(nearly) every day* to 5 = *(almost) never*. These activities ranged from doing homework to playing games and using social networking sites. A polychoric factor analysis revealed that playing games did not relate to the other activities. In order to obtain information about adolescents' online behaviour, the activities were categorized into four types based on their nature and content: games (1 item), doing homework (1 item), social activities (emailing, chatting, using IM and social networking sites; Cronbach's α = .53), and other activities (downloading films or music, editing photos and web surfing or Googling; Cronbach's α = .59). The average time spent doing it was calculated for each type of activity.

Non-Western immigrants. Additional information was provided by the Dutch Municipal Administration (in Dutch: basisregistratie personen) about the country of birth of individuals and their parents. Following the definition of Statistics Netherlands | CBS, adolescents who were born in a non-Western country, or when one of their parents was, were regarded as non-Western immigrants. A variable with two categories was created (1 = *non-Western immigrant*, 0 = *Western immigrant or Dutch origin*).

Control variables. Age and gender are included as control variables. From the parents' questionnaire, information was included about their education level (the highest level of the father or mother; ranging from 1 = *no education* to 9 = *university*), the number of children in the household and whether the home is a single-parent household (1 = *yes*, 0 = *no*).

3.6 Results

Social participation of poor adolescents

First, the extent to which social participation is related to poverty among adolescents in the Netherlands was investigated (relationship "a" in Figure 3.1). A regression model with income and the control variables of gender and age shows that adolescents with a higher average household income are more likely to participate in social relationships (see Table 3.2, Model 1a). Similarly, adolescents living in a household with a higher income are also more likely to take part in other different leisure activities (see Table 3.2, Model 1b). Reduced social participation with friends was not specifically found among adolescents living below the "just-making-ends meet" income threshold (OLS regression: b = -.175, p = .074), although those from poor households do participate significantly less in formal leisure activities (OLS regression: b = -.960, p < .01). Furthermore, girls and younger adolescents take part more than boys and older adolescents in these types of activity. Adolescents with less well-educated parents and non-Western immigrants participate less in leisure activities than those with higher-educated parents and those originating from Western countries and the Netherlands (Table 3.2, Model 2b).

As adolescents from low-income households often live in complex families, several family characteristics were added to the analysis. Furthermore, adolescents who earn their own income may compensate for material deficiencies at home. Controlling for the number of children in the household, the origins of the family, parental education level and whether the family is a single-parent home produces a non-significant effect of income in the participation in social relationships model. Unlike income, the differences between adolescents in terms of participation in social relationships appear to differ between parental education level and whether adolescents have a job on the side (Table 3.2, Model 2a). The non-significant influence of income may also result from the fact that income differences are largely explained by these family characteristics. An OLS regression analysis of income indicated that non-Western immigrants, single parents, less well-educated parents and households with more children have a lower income (see Table 3.3).

TABLE 3.2. OLS regression of social participation with peers (models 1a and 2a), and ordered logistic regression of formal social participation (models 1b and 2b; n = 950)

	MODEL 1A	MODEL 2A	MODEL 1B	MODEL 2B
Gender	.199**	.197**	.348	.393*
Age	.02	.02	-.259**	-.303**
Household income	.170**	.08	1.239**	.521*
Education level of parents		.03*		.248**
Single-parent household		.06		-.207
Number of children in household		-.03		-.096
Non-western immigrant		-.130		-.789**
Part-time job		.160*		.396
R^2	.07	.11	.04[a]	.07[a]

** p < .01 * p < .05

Source: ASOUK (2008)

[a] Since Stata does not allow users to calculate the pseudo-R^2 for ordered logistic regression models when using population weights, the R^2 of the unweighted models are presented. Though the size of the R^2 cannot be interpreted, it does provide an indication of the increase in explained variance after the addition of the further variables in models 1b and 2b.

The differences in formal leisure participation are explained by both income and several family characteristics: adolescents from higher income families, those with higher educated parents and those originating from Western countries and non-immigrants are more active in formal leisure activities than adolescents from low-income households, with lower-educated parents, and with non-Western origins (Table 3.2, Model 2b).

TABLE 3.3 OLS regression of family income (n = 950)

Gender	.024
Age	.034**
Education level of parents	.077**
Single-parent household	-.249**
Number of children in household	-.044**
Non-Western immigrant	-.192**
R^2	.28

** p < .01 * p < .05 Source: ASOUK (2008)

Since the aims of this chapter are to investigate how Internet use and differences in socioeconomic status are related to social relationships, the further analyses are focused on adolescents' involvement in these relationships. In order to provide insight into these relationships, the following investigation concerns how income differences are related to adolescents' Internet use (see also Figure 3.1).

Income differences and Internet use

As a second step, differences in Internet access and use are investigated in terms of income differences and socioeconomic background (relationship "b" in Figure 3.1). Similar to differences in participation in social relationships, differences in Internet access and use are explained by family and individual characteristics rather than by differences in household income. The number of computers is likely to be larger in the households of higher-educated parents (ordered logistic regression (odds ratio): $b = 1.356$, $p < .01$) and in those with more children ($b = 1.248$, $p < .05$). Meanwhile, there are fewer computers and laptops in the households of non-Western immigrants ($b = .525$, $p < .01$).

TABLE 3.4 OLS regression of differences in time spent online by Dutch adolescents (n=950)

		MODEL 3
Gender		-2.431**
Age		1.779**
Household income		-.631
Education level of parents		-.219
Single-parent household		-.353
Number children in household		-1.180**
Non-western immigrant		2.586*
Part-time job		-2.450
Number of computers/laptops		
0 or 1 computer/laptop (ref.)		
2 computers/laptops		2.174*
3 or more computers/laptops		3.627**
Number of devices		
0 or 1 device (ref.)		
2 devices		3.775**
3 or more devices		3.311**
R^2	.11	.18

** p < .01 * p < .05 Source: ASOUK (2008)

The time that adolescents spend online is negatively related to household income, but this effect is not significant (see Table 3.4). Although larger families (while controlling for other family characteristics) possess more computers and laptops (ordered logistic regression (odds ratio): b = 1.248, $p < .05$), adolescents from these households spend less time online (see Table 3.4). Boys and older adolescents spend more time online than girls and younger adolescents. We also found that, holding other factors constant, non-Western immigrants spend more time online than those originating from Western countries or the Netherlands (see Table 3.4). This is not in line with the prediction made in Hypothesis 3. Moreover, the number of access points is related to the time that adolescents spend online:

those with more computers in the household spend more time online (see Table 3.4). Games are played somewhat less often by non-Western immigrants (Pearson's r = -.14, p < .01), and adolescents with higher-educated parents spend slightly more time online doing homework (Pearson's r = .08, p < .01).

Income differences, Internet use and social participation

In a final regression model, the extent to which family characteristics and Internet use explain differences in social participation among adolescents were examined, testing the three hypotheses (see Table 3.5). The number of devices and computers that adolescents possess and the time they spend online are not related to more involvement in social relationships. These findings do not confirm the expectation formulated in Hypothesis 1 that possessing more devices promotes adolescents' social participation. As a consequence, the results do not suggest that these devices have a symbolic value for adolescents' participation in social relationships.

It does matter what adolescents do online; spending more time gaming is negatively associated with participating in peer groups (see Table 3.5, Model 4). Adolescents who communicate more online are also more likely to participate in peer groups (see Table 3.5, Model 4), which confirms the second hypothesis. Activities like editing photos and downloading films are also related to greater involvement in social relationships.[11)]

Income levels are not significantly related to participation in social relationships when controlling for socioeconomic background and family characteristics. Of these characteristics, only origin has a significant influence (see Table 3.5, Model 4). Controlling for online participation and the possession of devices shows that non-western immigrants take part less in social relationships. However, as they spend more time online than adolescents with

11) Reasons for using the Internet may also influence adolescents' participation online and social relationships. Some individuals do not see the added value of using the Internet and do not participate online (Eynon & Geniets, 2012). However, no significant effects were found for the variables measuring adolescents' perceptions of the extent to which they and their peers value the use of ICT (measured by two statements each on a 3-point scale: peers: $\chi 2$ = 117.32, p < .01, Cramer's V = .25; adolescents: $\chi 2$ = 62.95, p < .01, Cramer's V = .18). The importance of the use of ICT did not vary by the extent to which adolescents use communication technologies and the Internet.

Western origins (see Table 3.4), this lack of participation does not seem to result from a lack of online involvement, which means that Hypothesis 3 must be rejected. Moreover, further analysis does not suggest that the reduced social inclusion of this group is the result of differences in the possession of devices (OLS regression: interaction effect of non-Western origin*2 devices, b = -.224, p = .203; non-Western origin* 3 or more devices, b = -.093, p = .370). However, an interaction between origin and online social participation indicates that there is a difference in the effect of online social activities as a result of the origins of adolescents (see Table 3.5, Model 4); for those with non-Western origins who do not take part in online social activities, their social participation in peer groups is much lower than that of non-immigrants or immigrants of a Western origin (see Table 3.5, Model 5: b = -.517, p < .01). Taking part in online social activities thus improves their social inclusion (-.517 + .120*extent to which they engage in online social activities). Furthermore, the interaction effect also indicates that engaging in online social activities is more strongly related to inclusion in peer groups among non-Western immigrants than among non-immigrants and immigrants with Western origins (.093+ .120*1). Although not completely in line with the prediction of Hypothesis 3, the results indicate that participation of non-Western immigrants in peer groups is lower, but may be compensated for by engaging in online activities.

TABLE 3.5 OLS regression on participation in social relationships (n = 950)

	MODEL 4	MODEL 5
Gender	.106*	.103*
Age	-.023	-.020
Household income	.058	.057
Education level of parents	.019	.018
Single-parent household	.051	.047
Number of children in household	-.030	-.025
Non-Western immigrant	-.130*	-.517*
Part-time job	.133*	.129*
Time online	.000	.000
Number of computers/laptops		
0 or 1 computer/laptop (ref.)		
2 computers/laptops	-.038	-.045
3 or more computers/laptops	.028	.023
Number of devices		
0 or 1 device (ref.)		
2 devices	.137	.125
3 or more devices	.125	.111
Online activities		
Social activities	.117**	.093**
Games	-.052**	-.050**
Homework	.007	.004
Other	.053*	.052
Non-Western immigrant *online social activities		.120*
R^2	.20	.21

** p < .01 * p < .05

Source: ASOUK (2008)

The findings also show that girls and adolescents who have a job participate more in social relationships. Working after school may expand an

adolescent's social network and thereby promote participation in peer groups. Having a part-time job and earning their own money is not, however, a coping strategy of deprived Dutch adolescents, as it appears that those of a non-Western origin and those living in single-parent households have a job less often (logistic regression (odds ratio): $b = .497$, $p < .05$).

3.7 Conclusion and discussion

This study investigated whether adolescents from low-income households participate less in social relationships and formal leisure activities. Also examined was the extent to which adolescents' Internet use is related to differences in social participation by those from different socio-economic backgrounds. The results have indicated that adolescents from low-income households participate less in social relationships and formal leisure activities like sports and hobbies. However, when controlling for different family characteristics, it appears that it is not specifically poverty or income, but more the influence of differences in family origins (non-Western immigrants) and the education level of parents that explain variations in involvement in social relationships. These differences in origin and parental education do explain some of the differences in income levels. In terms of participation in formal leisure activities, such as sports or choirs, differences between income levels persist when controlling for other family characteristics. This may be due to the financial costs of being member of a sport or leisure association.

From these findings, it can be concluded that there are differences in social participation among adolescents from different social backgrounds. These differences appear not to be the result of inequalities in terms of possessing material or symbolic goods, as we did not identify that adolescents who possess fewer devices experience more difficulty in informal social participation. We did, however, find that participation in online social activities is positively related to adolescents' integration in peer groups. That is, adolescents who engage more in online social activities appear to be more socially included and better connected to their peers offline. This effect is even larger for adolescents with non-Western origins.

It has to be noted that this relationship between online social activities and social inclusion may also work in the opposite direction: adolescents with larger social networks may be more likely to communicate online. Nevertheless, the extent to which adolescents do "other" activities, such as editing photos or downloading films, is also associated with greater participation in social relationships. Playing games online, however, is related to less participation in social relationships.

Although children have been regarded as not having the power to change their living circumstances, they are agents who can develop coping strategies (cf. Backet-Milburn et al., 2003; Redmond, 2008). One of these possible strategies is having a part-time job. The results show that adolescents with these jobs participate more in social relationships. However, these are not adolescents from lower socioeconomic groups, as those from non-Western immigrant and single-parent families are less likely to work. Accordingly, instead of being a coping strategy, having a part-time job appears to have a social effect. A possible explanation is that having a job extends a youngster's social network, which in turn promotes social activities with peers.

Sletten (2010) has argued that it is not poverty that hurts children, but the social costs thereof. That is, they experience not the poverty itself, but the social consequences of being poor. In line with Sletten (2010), we found that adolescents from low-income families participate less in formal leisure activities. In fact, adolescents with non-Western origins participate less in both formal leisure activities and social relationships. Since adolescents with such origins more often grow up in low-income households, more commonly have lower-educated parents and have a part-time job less often, they appear to be the group with the highest risk of social exclusion and may experience these social costs. Future research could investigate whether these differences in social participation relate to integration in society and family resources or exclusively to income differences.

These results teach us a lot about differences in the social participation of adolescents among different socioeconomic groups, and how their online behaviour is related to their involvement with peers. Online engagement is

positively related to offline and online connections between adolescents. From the findings, one may even conclude that online communication is a useful tool for groups at risk of social exclusion. However, the situation has changed since these data were collected. Firstly, the use of a computer at home was taken as a proxy for having access to the Internet in the analyses in this chapter. Although this was the case for most adolescents in 2008 (98%), this percentage was lower among single-parent households (87%), meaning that not everyone possessing a computer or laptop had the device connected to the Internet. Even though we control for living in a single-parent household in the analyses, it would have been interesting to compare the social participation of adolescents with Internet access at home with those without it. Secondly, there have been new developments in ICT since 2008 and the financial crisis, which worsened the position of low-income households. Although it seems that the crisis has not affected the overall increase in the saturation rate of devices such as the Smartphone in the Netherlands (cf. CBS, 2013), more research is needed about how these developments have influenced the differences between families with both fewer and more resources.

CHAPTER 4

Adolescents @ culture. The online communications of Dutch high school adolescents on popular and highbrow culture

Abstract[12)]
The interest of adolescents in highbrow culture like classical music, museums and plays is somewhat low, but this group's extensive Internet use may heighten this interest and increase their cultural participation online. In contrast to previous research, we examined adolescents' online involvement in both popular and highbrow culture. An investigation among 892 high school adolescents revealed that explanations from the fields of cultural participation and media use account for differences in online cultural involvement. Adolescents with parents who are more highly educated and culturally active are in turn more interested in culture and communicate online more about both highbrow and popular culture. Those with culturally interested friends also communicate more online about culture. In addition to interest and socialization, there appears to be a minor mobilization effect of Internet use, as those with better digital skills and spending more time online engage more in online cultural communications.

4.1 Introduction

Cultural participation increasingly takes place online, and not only in places like museums, theatres and concert halls. The soaring availability

12) This chapter is currently under submission. A previous version was presented at Etmaal van de Communicatiewetenschap 2012: Schols, M. en J. de Haan (2012). Tieners@cultuur: online communicatie van schoolgaande tieners over cultuur. *Paper presented at the Etmaal van de Communicatiewetenschap 2012*, 8-9 February 2013 in Leuven, Belgium.

of online cultural activities offers new ways to get involved, which may be especially relevant for adolescents, who participate very little in offline cultural activities, but use media extensively (Livingstone & Haddon, 2009). In the online activities of this group, popular culture is omnipresent; they listen to and share music and video clips with their friends, watch films and upload self-created content (boyd, 2008; Hargittai & Walejko, 2008). Highbrow culture is also incrementally available online, with classical music, plays and museum collections accessible on the Internet.[13] However, the extent to which adolescents participate in these online highbrow activities is as yet unknown.

Adolescents' cultural participation used to be predominantly determined by the main socialization institutions of the family and school, as such activities are derived from an interest in culture that is developed by socialization in early life (Bourdieu, 1979/1989; Ganzeboom, 1989). This transmission of cultural values, especially regarding highbrow culture, was previously almost exclusively visible among the higher-educated. In today's "mobile youth culture" (Castells, Fernández-Ardèvol, Linchuan Quiu & Sey, 2009) or online youth culture, traditional patterns of influence have changed. In particular, social media allows adolescents to consume and produce online content and communicate with their social networks without being bound to physical locations or time (Hargittai & Walejko, 2008; Jenkins, 2006): "[…] these new technologies move young people away from the sphere of influence of traditional socialization structures, such as the home, educational system, and broadcast media, while providing an ever-widening range of socializing and identification options." (Castells et al., 2009: 141).

In this study, adolescents' online highbrow and popular cultural participation is investigated by reflecting on changes in cultural socialization and the increased influence of youth culture. To reduce the complexity of

13) For instance, Google Art, which enables virtual walks through museums and many museums have developed tablet and Smartphone applications. A well-known Dutch example is the Rijksmuseum, which made its collection easily accessible through thematic ordering in the online application "master match" (finding matching paintings based on personal preferences; www.rijksmuseum.nl).

the multifaceted concept of online cultural participation, we focused on one of the most popular online activities among adolescents: communication. The other two user roles that have been distinguished in research on children's online risks and opportunities, i.e. information searching activities (content) and the creation of new online content (conduct), have been omitted from our considerations (Hasebrink, Livingstone, Haddon & Ólafsson, 2009). However, by looking at the extent to which adolescents communicate online about cultural topics, we investigated how the differences in online communication about highbrow and lowbrow culture can be explained.

The question addressed in this study is:

To what extent do adolescents communicate online about highbrow and popular culture, and how can differences in online cultural communication be explained?

To answer this question, we used a large-scale survey concerning the offline and online cultural participation of Dutch high school adolescents. We specifically focused on receptive cultural activities, which include adolescents' visits to and online discussions about, for instance, museums, pop concerts and cabaret. The Netherlands is an interesting case to investigate for two reasons. Firstly, it is one of the leading countries in terms of Internet diffusion, with 98% of its 15-25 year olds online in 2008 and 100% of those aged 12-15 (CBS, 2013). The widespread use of the Internet means that cultural institutions can potentially reach almost all adolescents. Secondly, increasing the extent of cultural participation has been a particular issue in Dutch education policy, and resulted in the introduction of special cultural courses in schools and the availability of significant funds for cultural institutions to digitize material and make it publicly accessible. Nevertheless, Dutch youngsters do appear to be more negative about highbrow cultural activities than their other European counterparts (Van Eijck & Knulst, 2005).

4.2 Cultural and media socialization

Parents as socializers

Parents play a key role in their children's cultural and media socialization; they promote the personal development of their children, perform socializing activities to encourage certain kinds of behaviour, and are role models whose own behaviour is consciously and unconsciously imitated (Bandura & Walters, 1963; Notten & Kraaykamp, 2009). Cultural socialization is especially influential in the long-term if one is familiarized with certain forms of behaviour at a young age (Ganzeboom, 1989; Nagel, 2010). Consequently, adolescents who have more culturally active parents are likely to be more culturally active themselves. This socialization may not only influence adolescents' offline cultural participation, but is also expected to be visible in their online cultural activities.

Cultural socialization within families used to differ depending on the parents' social background. As maintained by status attainment theory (Bourdieu, 1979/1989; Ganzeboom, 1989), the higher-educated have traditionally participated and socialized their children more in highbrow culture, with the goal being to build cultural capital and distinguish the family from others who are less well educated. Indeed, involvement in cultural activities was regarded as part of a "classical ideal of civilization (Bildungsideal)" (Van Eijck & Knulst, 2005: 513). In addition, as formulated by information theory, the higher-educated have better cognitive skills and cultural competencies (Ganzeboom, 1989), which enables them to derive more pleasure from participation in highbrow cultural activities than their lower-educated counterparts. Differences among socioeconomic groups are also visible in media socialization and media use. Children of higher-educated parents are more often confronted with, and they are more often encouraged to use, complex media like reading literature and watching informational television programs (Kraaykamp, 2003; Notten & Kraaykamp, 2009). Parents influence their children's media use through their own behaviour and by encouraging participation in certain media activities. Since higher-educated parents themselves more often utilize complex media and content and promote its use, their children may be more likely to participate in and discuss highbrow cultural content.

Higher-educated parents not only promote their adolescent children's highbrow cultural activities. Indeed, instead of distinguishing themselves in highbrow cultural participation alone, Peterson (1992, 1997) has shown that the higher-educated participate more in both highbrow and popular culture than their lower-educated counterparts. This idea of the "cultural omnivore" has predominantly been investigated among adults (Van Wel, Maarsingh, Ter Bogt & Raaijmakers, 2008). However, in an explorative study, Van Wel et al. (2008) identified the notion of the cultural omnivore in their research on youth cultural participation. In line with this notion and the cultural and media socialization referred to above, we expected that higher-educated and more culturally active parents will promote the online participation of their adolescents in both popular and highbrow culture:

> ***H1.*** *Adolescents with higher-educated and more culturally active parents are more likely to participate online in popular and highbrow culture than adolescents with lower-educated and less culturally active parents.*

Cultural and media socialization at school

Along with parental cultural socialization, schools in the Netherlands also have a specifically defined role in transmitting cultural values to their students. As part of the curriculum, students participate in the arts course CKV (Cultural Artistic Education), which was introduced in 1999 to encourage the cultural involvement of adolescents by compelling them to visit, for instance, plays, museums and concerts (Nagel, Damen & Haanstra, 2010). Although hoping to have long-term effects, research has indicated that the course only has a short-term influence in terms of heightened cultural participation among students during their high school years (Nagel et al., 2010). In addition to the CKV course, several schools differentiate themselves by paying special attention to culture in their curriculum and by cooperating with cultural institutions. This extra attention is not specifically related to the level of education provided by the schools, and is therefore interesting to investigate. Indeed, Kröner, Vock, Robitzsch & Köller (2012) did not find any differences in adolescents' receptive highbrow cultural participation among different school levels, and suggest the

need for further investigation of the possible influence of schools' cultural profiles on the cultural activities of their adolescent students.

As well as promoting offline and online cultural participation through the attention paid to culture, schools may also have a role as media socializers. As educators, teachers may encourage adolescents to utilize applications other than those they would normally use. Teachers at Dutch high schools increasingly use ICT in their classes, and the quality and level of ICT facilities has improved (Kennisnet, 2011). However, even though ICT use at schools has become common practice, there are still differences in terms of the type of facilities, the degree of ICT experience, and policies and agreements at the management level (Kennisnet, 2011; Plantinga & De Heer, 2009). In particular, schools that promote a clear vision and ICT use among teachers and students may encourage the latter to use more and different ICT applications. This might in turn encourage the online cultural participation of their adolescent students.

> ***H2.*** *Students at schools with a more active cultural curriculum, and those at schools with better ICT facilities, communicate online more about highbrow and popular culture than those at schools with a less active cultural curriculum and fewer ICT facilities.*

4.3 Peers and youth culture

Popular cultural activities like going to the cinema and pop festivals are part of young people's interests and youth culture, while visits to museums and classical music are often not viewed as appealing. The growing importance of youth cultures may be a sign of the changed cultural socialization of adolescents, as these cultures and peer groups have become increasingly important in the formation and shaping of adolescents' interests and identity, partly at the cost of parental influence (Baym, 2010).

The influence of peers and youth culture may have become more prominent with the growing use of new communication technologies, which

have increased adolescents' opportunities to express themselves and converse with their social networks (boyd, 2008; Castells et al., 2009). Online interaction is predominantly with their peers, and they mainly communicate about their interests and daily life activities (Awan & Gauntlett, 2013; Gross, 2004; Reich et al., 2012; Valkenburg and Peter, 2007). As a consequence, an interest in culture is likely to be reflected in adolescents' online communication. This expectation is supported by the notions that adolescents are likely to have friends with similar interests (cf. McPherson, Smith-Lovin & Cook, 2001; Nagel, Ganzeboom & Kalmijn, 2011), and that they communicate online about these interests with their peers (Gross, 2004). Accordingly, adolescents who are culturally interested themselves, and those with culturally interested friends, are expected to converse online more about culture than adolescents with fewer cultural interests and friends who are less culturally involved. These interests and the influence of what peers are interested in are not restricted to popular cultural forms that are part of an adolescent's youth culture. Indeed, as adolescents discuss their own and their peers' interests, those with an enthusiasm for highbrow culture, and those with peers who have the same passions, are expected to communicate more about highbrow culture online.

It is not only the cultural interests of those in their social networks, but also adolescents' Internet use and digital skills, that are likely to influence their online communication about culture. Although young people spend a significant part of their time online and have been described as "the net generation" or digitally "savvy" (Tapscott, 1998), there are clear differences in their use of the Internet and their ability to utilize online applications (Hargittai, 2002; Westlund & Bjur, 2014). Boys, older children and those with a higher level of education are more skilled than girls, younger children and those with a lower level of education (Hargittai & Shafer, 2006; Sonck, Kuiper & De Haan, 2012). The possession of more digital skills and spending more time online results in fewer problems in using communication tools, finding and evaluating information online, and using the Internet for a wider variety of purposes (Gui & Argentin, 2011; Sonck et al., 2012). Similar to findings from the political domain (cf. Hargittai & Shaw, 2013), it is therefore expected that spending more time online and possessing a higher level of digital skills will result in more time being

spent on online cultural activities and, as a result, more communications about culture.

H3. *Adolescents with culturally active friends communicate online more about popular and highbrow culture than those with friends who are less culturally active.*

H4. *Adolescents who are more interested in offline cultural activities are more likely to communicate online about popular and highbrow culture.*

H5. *Adolescents with better digital skills and those spending more time online communicate online more about popular and highbrow culture than those with fewer digital skills and those spending less time online.*

4.4 Design and sample description

To answer the research questions and test the hypotheses, the ICT and School (ICTS) survey from 2008 was used. This large-scale survey was the fifth act of data collection as part of the joint Youth and Culture research project of VU University Amsterdam and the Netherlands Institute for Social Research | SCP. The questionnaires used have changed over time, but each act of data collection is based on previous waves (Nagel, 2006). The main aim of the 2008 wave was to provide insight into adolescents' media use, and their offline and online cultural participation (see Schols, Duimel & De Haan, 2011).

After removing respondents who were younger than 12 or older than 18, or who did not complete the questionnaire seriously or answer the demographic questions, a total of 1,592 students remained. Several of these respondents did not fill in the questionnaire completely. Teachers filled out questionnaires about the ICT use and cultural activities of the schools, which were located in both smaller and larger communities throughout the Netherlands. The selected schools were intended to reflect the circum-

stances of Dutch adolescents in secondary education (Prins & Konijn, 2008). Using a stratification method, 196 classes at 32 different high schools were selected according to their educational level (low: vmbo; middle: havo; and high: vwo). A total of 167 classes participated, and half of their students were asked to take part in the survey (response rate of 85%). Since the decision to also survey the teachers was made late in the process, only 67 of these professionals participated, and information from several schools is therefore lacking (Prins & Konijn, 2008).

Description of variables

Online communication about popular and highbrow culture. The teenage participants indicated the frequency of their online communication about popular cultural (10 items) and highbrow cultural topics (7 items) on a 3-point scale (1= *never*, 2 = *sometimes,* 3 = *often*). Adolescents communicate online particularly about popular culture, especially music (31.0% often, 35.8% sometimes), TV shows (21.9% often, 45.4% sometimes), and films (10.8% often, 52.0% sometimes). Highbrow cultural topics are discussed by fewer adolescents and less frequently; while 20.7% of the participants sometimes communicates online about books and/or writers (and 2.4% often), art (1.4% often, 12.3% sometimes) and ballet (2.4% often, 11.6% sometimes) are discussed by very few adolescents and much less often. In total, 83% of the surveyed adolescents indicated that they have discussed one or more popular cultural topics online.[14] A variable was created measuring the number of these topics that adolescents discussed online (Cronbach's α = .83). Since only 39% of the respondents communicated about highbrow cultural topics online, and most of them about only one subject, a dichotomous variable was created measuring whether adolescents communicate about highbrow cultural activities (0 = *discuss no highbrow cultural topics*, 1 = *discuss one or more highbrow cultural topics*; Cronbach's α = .81).

14) We tested whether adolescents who have not discussed a popular highbrow cultural activity are a specific group compared to the adolescents who have discussed one or several popular highbrow activities. A Heckman selection was tested, which, in the first step, contained all of the independent variables, predicting whether or not adolescents communicate offline. In the second part of the model, the predictors of the offline cultural participation of adolescents and their friends, and adolescents' Internet use and digital skills, were included to explain the extent to which these young people communicate about culture online. The model was not significant, $\chi 2$ (1, n = 886) = 1.08, p = .30, meaning that it was not necessary to control for any selections in the analyses.

Education level of parents. The education level of the parents was based on the highest education level of the mother or father as reported by each respondent. So, if one of the parents was more highly educated than the other, the level of that parent was taken as the indicator of the parents' overall level of education. A variable was created with three levels (1= *low*, 2 = *middle*, 3 = *high*).

Cultural interest. To assess cultural interest, we used questions measuring the offline cultural activities of adolescents, their parents and their peers. For 12 different offline, receptive, cultural activities, the adolescents indicated on a 5-point scale (ranging from 1 = *(almost) never* to 5 = *approximately once a month*) their participation in/attendance at events including the cinema, cabaret, pop/rock festivals, museums and classical music concerts (Cronbach's α = .80). Since the frequency of participation was low, it was decided to count the number of the different cultural activities that the adolescents got involved with. The offline cultural participation of the parents was measured in a similar way, with the respondents being asked about how often their parents got involved in nine different cultural activities (Cronbach's α = .80). A variable was created measuring the number of different activities that the parents took part in. Meanwhile, for the cultural participation of their peers, the respondents were asked how many of their friends (4-point scale, ranging from 1 = *none* to 4 = *nearly all friends*) took part in 12 different cultural activities (Cronbach's α = .81). Similar to the cultural participation of parents, a variable was created measuring the number of different activities that their friends took part in.

TABLE 4.1 Description of the variables

	M	SD	RANGE	N
Online communication about popular culture	4.22	2.95	0-10	886
Online communication about highbrow culture	0.39	0.49	0-1	886
Gender [a]	0.54	0.50	0-1	886
Age	14.86	1.44	12-18	886
Education level	2.07	0.74	1-3	886
Education level of parents	2.23	0.78	1-3	886
Cultural participation of parents	3.94	2.56	0-9	886
Cultural participation of peers	7.75	2.87	0-12	886
Cultural participation of adolescents	4.77	2.87	0-12	886
Time spent online	2.76	1.97	0-12	886
Digital skills [b]	4.40	1.27	1-6	886
Culture at schools (index 1) [b]	15.01	4.72	0-23	543
ICT at schools (index 2) [c]	9.26	4.24	0-18	561

[a] Reference category is "male".
[b] 21 schools.
[c] 22 schools.

Source: ICTS (2008)

Internet use and digital skills. The time that adolescents spend online was measured by the average number of hours they spend on the Internet per day. To reduce the influence of outliers, the maximum number of online hours was set at 12, which meant re-coding the values for 29 respondents. This is in line with the assumption that adolescents spend a certain number of hours offline, for instance during the day when they are at school and at night when they are sleeping.

To measure digital skills, the adolescents were asked whether or not they could perform certain computer and Internet activities. These activities were based on the three types of digital skills identified by Steyaert (2002): instrumental (operational skills, or the capacity to work with hardware and software), structural (the capacity to search for and process information on the computer and the Internet), and strategic (the use of information to achieve certain goals). We investigated the influence of instrumental

digital skills, because adolescents apply these in their online cultural participation and communication. Furthermore, the instrumental scale has acceptable reliability (Cronbach's α = .63), while the other two do not.[15] The items were added together to form an index reflecting the number of these skills that the adolescents were able to perform, ranging from 1 = *(almost) no digital skills* to 6 = *very good digital skills*.

ICT and culture at schools. Teachers were questioned on the extent to which their school pays attention to ICT and culture. These questions related to the presence of ICT equipment and infrastructure at the surveyed schools, the use of these facilities for education, and whether schools developed policies around ICT use for educational reasons (Cronbach's α = .61). The questions regarding culture related to the specific attention paid to culture within and outside the curriculum, cooperation with and visits to cultural partners (e.g. libraries, cinemas, theatres), and the opportunities for teachers to organize cultural activities (Cronbach's α = .87). As the decision to collect information about schools by distributing questionnaires among teachers was taken at a late stage in the preparation of the fieldwork, data was collected from just 22 of the 36 schools approached. The two indices were constructed by adding up the scores on the different questions.

Control variables. The analysis was controlled for the gender, age and education level of the teenage participants. Education was divided into three levels (1 = *low*, 2 = *middle*, 3 = *high*), corresponding to the Dutch school system (vmbo, havo and vwo).

Data analysis

A difficulty with the ICTS 2008 survey data is the relatively high number of missing values. An exploration of these values indicated that they are mainly at random. Accordingly, as there were no significant correlations

15) We have included a sum score of the structural digital skills in the analyses, and found positive significant effects of structural skills on online communication about popular and highbrow culture. However, since the reliability of the scale was questionable (Cronbach's α = .34), meaning that the results are difficult to interpret, it was decided to exclude structural digital skills from the analyses.

among the missing values, it was decided to proceed with listwise deletion in order to produce comparable models. This is a suitable strategy for values that are missing at random (Allison, 2009). A disadvantage of the technique is the loss of power in the analyses. However, due to this loss, any differences that are found to be significant can be interpreted with great confidence. Listwise deletion left us with 886 respondents. We also had information about their schools for 547 of them. Stata version 12 was used to analyze the data.

4.5 Results

Differences between schools

We first investigated whether the attention paid to culture in schools, and their ICT infrastructure and usage, led to differences between them in the extent to which adolescents communicate online about culture. A multilevel linear regression analysis (Hox, 2010) indicated that the differences within the schools were greater than those between them (low intraclass correlation of $\rho = .03$). Furthermore, the minor differences between the schools were explained by the demographics of the adolescents and not by school characteristics. Adding the demographics to the multilevel model indicated that such a model does not significantly differ from a linear regression model, χ^2 (1, n = 886) = 1.56, $p = .11$. From these findings, it appears that the adolescents' online communication about culture is not affected by whether they attend schools that promote culture and ICT use more. This means that Hypothesis 2 cannot be confirmed. Since the school-level variables did not contribute to explaining differences in online communication about culture, they were not included in further analyses.

Analyzing online communication about popular and highbrow culture

The dependent variable of online communication about popular culture was constructed by counting the number of popular cultural topics that the adolescents discussed online. It therefore followed a Poisson distribution. Since the dependent variables revealed additional variance, a negative binomial regression model was most suitable for analyzing the differences between the online cultural communications about popular

culture.[16] For the binary dependent variable of online communication about highbrow culture, a logistic regression model was calculated by comparing the adolescents who communicate online about highbrow culture with those who do not. In our analyses, we used robust variance estimates to control standard errors for the clustering of respondents within school. This method produced consistent standard errors for the clustered data by allowing observations to be correlated within the schools, but treated observations among different schools as independent (see Rogers, 1993).

What influences online communication on highbrow and popular culture?
Online communication about popular culture is much more prevalent among adolescents than online communication about highbrow culture. These young people especially discuss topics related to music (31.0% often, 35.8% sometimes), but rarely art (1.4% often, 12.3% sometimes). Discussions of highbrow and popular cultural topics are, however, strongly related: adolescents who communicate online more about highbrow culture are often also the ones who communicate more about popular culture, see Table 4.2, $r = .55$, $p < .01$.

Similar to the socialization of offline cultural participation, it was expected that parents would influence their children's online cultural involvement. The correlations identified do indeed show a very strong association between parents' offline and adolescents' online cultural participation (see Table 4.2).[17] However, in the regression analysis, parental cultural participation has no significant effect on adolescents' online communication about popular and highbrow culture (see Table 4.4). Furthermore, we did not find any differences between adolescents with higher-educated and lower-educated parents. Although the findings contradict Hypothesis 1, our expectations cannot be disregarded. Despite the appearance that traditional explanations of parents' cultural lifestyles and statuses barely

16) In a negative binomial regression model, over-dispersion is controlled for by adding an additional term to the Poisson distribution (see Beyerlein & Hipp, 2006).

17) The indicators of multicollinearity in the regression analyses did not indicate multicollinearity (the VIF was below 2 for the variables, and the tolerance well above .4, see Allison, 1999).

have an influence on adolescents' online cultural behaviour, further exploration shows that the expectations formulated in Hypothesis 1 are confirmed to some extent; instead of a direct influence, parental cultural participation and educational attainments indirectly influence the online cultural communications of adolescents. A negative binomial regression analysis of adolescents' offline cultural participation shows that those with higher educated and culturally active parents are more culturally active offline (see Table 4.3). As adolescents who are culturally active offline also communicate more about both highbrow and popular culture, thus confirming Hypothesis 4, we can conclude that higher-educated and culturally active parents socialize their children culturally. This cultural socialization indirectly also seems to promote the online cultural activities of adolescents.[18)]

18) To measure the indirect effects, a structural equation model may be more suitable. More specifically for this data, a path model seems appropriate, because the offline and online cultural participation of adolescents, their peers and parents is measured by similar topics (cf. Kröner et al., 2012; Little, Cunningham, Shahar & Widaman, 2002). Moreover, the dependent variables consist of count data, and therefore follow a Poisson distribution. A path model was calculated in which the nested structure of the data was controlled for by calculating robust error variances. The results of the path model are similar to the table with the correlations and outcomes of the negative binomial regression model. It was therefore decided to present the negative binomial regression models, as these control for the Poisson distribution of the dependent variables better.

TABLE 4.2 Sample correlations (Pearson correlations; n =886)

	Online communication popular culture	Online communication highbrow culture[a]	Education level of parents[b]	Cultural participation of parents	Cultural participation of adolescents	Cultural participation of friends	Time online	Digital skills
Online communication popular culture								
Online communication highbrow culture[a]	.55**							
Education level of parents[b]	.10**	.16**						
Cultural participation of parents	.33**	.27**	.37**					
Cultural participation of adolescents	.46**	.41**	.31**	.60**				
Cultural participation of friends	.37**	.26**	.20**	.44**	.49**			
Time online	.09**	.05	-.08**	-.14**	-.09**	-.15**		
Digital skills	.11**	.02	.01	.03	.01	-.05	.26**	

** p < .01 * p < .05

Source: ICTS (2008)

[a] To calculate the Pearson correlations for highbrow culture, the count variable (and not the dichotomous variable) is used. The count variable of online communication about highbrow culture measures the number of topics that the respondents have discussed online.

[b] The correlations of the education level of the parents are Spearman correlations.

Along with cultural socialization by parents and schools, it was expected that peers and the online or mobile youth culture would be particularly influential on adolescents' online cultural involvement. Our results confirm the expectation formulated in Hypothesis 3: the offline cultural participation of peers is positively related to adolescents' online communication about popular and highbrow culture (see Table 4.4). These findings imply that because individuals' online and offline social networks largely

overlap (Hampton & Wellman, 2003; Haythornthwaite & Wellman, 2002), adolescents may communicate online, especially with friends, about their shared interests. Indeed, they not only discuss popular cultural activities, because adolescents with more culturally active friends are also more likely to communicate online about highbrow cultural activities.

TABLE 4.3 Negative binomial regression analysis of adolescents' offline cultural participation, with robust standard errors[a] (n = 886)

	MODEL 1	MODEL 2
Gender	1.230**	1.155**
Age	1.045**	1.033**
Education level		
Vmbo (ref.)		
Havo	1.013	.993
Vwo	1.061	1.006
Education level of parents		
Low (ref.)		
Middle	1.162**	1.156**
High	1.193**	1.182**
Cultural participation of parents	1.140**	1.113**
Cultural participation of peers		1.060**
Intercept	1.045	.921

** p < .01 * p < .05

Source: ICTS (2008)

[a] Presented are Incidence Rate Ratios. Example of interpretation: an increase of one year in an adolescent's age, while holding other variables on the model constant, is expected to increase his or her rate for offline cultural participation by a factor of 1.045.

Furthermore, adolescents' media use is also positively related to their online communication about culture (see Table 4.4). Those with better digital skills and those spending more time online are also more culturally active online. Adolescents who spend more time online communi-

cate about more popular cultural topics and are more likely to converse about highbrow culture. Spending more time online may increase the time spent on different activities, including communication about cultural topics. Adolescents with more digital skills communicate about more popular cultural topics online. However, there is no difference in terms of the likelihood of conversing about highbrow culture between adolescents with more and those with fewer digital skills. Those with fewer skills do not differ from their counterparts with more in terms of their likelihood of communicating about topics like museums, classical music and ballet. Consequently, our expectation about the positive relationship between Internet use and digital skills, as formulated in Hypothesis 5, can only be confirmed with respect to online communication about popular culture.

TABLE 4.4 Negative binomial regression analysis of online communication about popular culture,[a] with robust standard errors, and a logistic regression analysis of online communication about highbrow culture[b] (n = 886)

	ONLINE COMMUNICATION ABOUT POPULAR CULTURE [a]	ONLINE COMMUNICATION ABOUT HIGHBROW CULTURE [b]
Gender	1.169**	2.656**
Age	1.037	.967
Education level		
Vmbo (ref.)		
Havo	.946	1.324
Vwo	.921	1.524*
Education level of parents		
Low (ref.)		
Middle	1.040	1.164
High	.924	1.086
Cultural participation of parents	1.027	1.078
Cultural participation of peers	1.052**	1.145**
Cultural participation of adolescents	1.077**	1.228**
Digital skills	1.069**	1.082
Time spent online (in hours)	1.048**	1.133**
Intercept	.641	.019

** p < .01 * p < .05

Source: ICTS (2008)

[a] Presented are Incidence Rate Ratios. Example of interpretation: if an adolescent spends one more hour online, while holding other variables in the model constant, his or her rate of online communication on popular culture is expected to increase by a factor of 1.048.

[b] For online communication on highbrow culture, the odds ratios are presented. Example of interpretation: if an adolescent spends one more hour online, while holding other variables in the model constant, the odds of communicating online about highbrow culture (versus not communicating about highbrow culture) increase by a factor of 1.133.

The significant effects of Internet use and digital skills remain after controlling for the offline cultural participation of adolescents, their parents and their peers, signifying an independent influence of the media-related variables. The effect of Internet use is even stronger when controlling for the offline cultural participation of parents and adolescents, and the educational attainments of parents than in an analysis without these three variables. This finding is caused by the negative correlation between Internet use, the education level of parents and the offline cultural participation of parents and peers (see Table 4.2). Adolescents with higher-educated parents, more culturally active parents and more culturally active peers spend less time online. Furthermore, although girls communicate more about culture online, their level of digital skills is lower than among boys, $t(884) = 8.46$, $p < .01$. We did not identify a significant correlation between the level of digital skills and education levels.

The independent influence of digital skills and Internet use may indicate a mobilization effect of these variables in terms of online cultural participation, as spending more time online and having better digital skills appear to promote the online cultural involvement of adolescents, independently of their participation in culture. Another plausible explanation is that online communication about culture provides an alternative for adolescents who are unable to participate offline in cultural activities or who have an offline social network that is not interested in culture. However, further research is needed before it can be concluded that the Internet can attract new audiences or provide an alternative for adolescents who are culturally interested.

Furthermore, in addition to the formulated expectations, the results indicate that girls communicate online about more popular cultural topics and are also more likely to communicate about highbrow cultural topics than boys (see Table 4.4). This corresponds with previous findings that girls in general communicate online more than boys, and that girls are more culturally interested (Schols et al., 2011; Van Wel et al., 2008).

4.6 Conclusion and discussion

In this chapter, we examined the extent to which adolescents' online cultural participation is explained by cultural socialization by parents and schools, and by the influence of peers and the use of new media. In contrast to previous research, the focus was not only on popular cultural topics that are a part of youth culture, but also on how adolescents communicate online about highbrow culture.

As expected, popular culture is more often the subject of adolescents' online conversations than highbrow culture. However, a significant proportion of the adolescents in this study indicated that they have communicated online about at least one highbrow cultural topic. The differences in their online communication about culture are mainly explained by their own and their peers' offline cultural participation and their Internet use and digital skills. Peers are not only influential when it comes to popular culture, but also with respect to adolescents' online communications about highbrow culture. Since adolescents communicate online mainly with their offline network, their online communications largely reflect their shared interests and those of peers. Furthermore, spending more time online may lead to being confronted with greater numbers of different cultural topics and activities, leading to more online communication about these subjects. Higher levels of digital skills promote online communication about highbrow and popular culture. Digital skills appear to be a precondition for online communication about both popular and highbrow culture (cf. Gui & Argentin, 2011). From this latter finding, one may conclude that online cultural participation is stratified along more different dimensions than offline cultural participation, as digitally savvy adolescents participate more in online communications about popular and highbrow culture.

In explaining differences in online cultural participation, peers, Internet use and digital skills appear to be more important than the more traditional forms of cultural socialization by parents and schools. Although explanations regarding cultural socialization cannot be directly transferred to adolescents' online cultural participation, we found that parents have an

indirect influence on their teenage children's online cultural involvement via their offline cultural activities. In line with the information and status attainment theories, adolescents with higher-educated and culturally active parents participate more in cultural activities offline (Ganzeboom, 1989; Nagel, 2010). In contrast to our expectations, we did not identify a socialization effect of schools. The attention that schools pay to culture, ICT infrastructure and ICT use has no influence on adolescents' online cultural communication. This does not necessarily mean that schools have no impact on adolescents' cultural interests and use of ICT. The attention paid to culture in schools may increase the overall cultural involvement of adolescents due to the mandatory participation in the CKV cultural course (Nagel et al., 2010). The absence of any effect of attention paid to ICT use and ICT infrastructure by schools could be explained by adolescents' rather limited use of this technology at school compared to the hours they spend online in their leisure time (Kennisnet, 2011).

The positive influence of Internet use and digital skills may indicate a mobilization effect on adolescents' cultural involvement. New media offer new possibilities for presenting culture and for exchanging online cultural content. Indeed, we found a positive relationship between Internet use and the online cultural participation of adolescents. However, more research is needed before the conclusion can be drawn that spending more time online and having better digital skills promote online cultural participation. We measured adolescents' offline cultural involvement and not their interest in highbrow and popular culture. The new opportunities for cultural participation on the Internet may thus attract adolescents who are already interested, but do not have the opportunities to get involved.

Furthermore, from the available data, it is not possible to provide more insight into the content of the online conversations about culture, how they take place and with whom. For instance, are adolescents merely mentioning cultural topics online, or are they involved in lively and substantive debates on cultural experiences and preferences? Their conversations about culture may have a negative connotation, for instance with respect to their boredom at or dislike of a museum visit with their parents or school. Moreover, do the new online opportunities also lead to more

communication about culture with people outside adolescents' offline networks? Since music, films and TV shows are part of their youth culture, it would be particularly interesting to investigate the motives and Internet use of adolescents interested in highbrow culture. It would also be valuable to examine whether the online world provides an opportunity for culturally interested adolescents who lack a culturally interested network with which to share their interests. In addition, the distinction between highbrow and popular culture is especially visible in the different participation levels; adolescents communicate more about popular cultural topics than about highbrow culture. It is interesting to investigate the extent to which adolescents themselves distinguish highbrow from popular culture, especially since certain groups participate more in all types of culture. Moreover, previous studies have found a gender gap in cultural involvement, with girls participating more in all cultural activities (Van Wel et al., 2008). In online communication, this gender divide may be even more prominent, because girls tend to use online communication applications more than boys (Schols et al., 2011).

The data was not gathered for the purpose of this chapter's study, and therefore some limitations have to be noted. Firstly, the questions regarding online and offline cultural participation do not include a specific timeframe. Although this makes it unclear whether adolescents discussed the different cultural topics or participated in cultural activities in the, for instance, previous month or year, our findings are similar to other Dutch nationally representative surveys. We found similar percentages with respect to visits to museums, plays, classical music concerts and monuments as in a nationally representative survey of 2007, which concerned respondents' participation in the 12 months prior to the survey (Van den Broek, De Haan & Huysmans, 2009). There is no national or international comparable information for online cultural participation. The benefit of the ICTS 2008 survey is that it measures the cultural participation of adolescents and their social network in an extensive manner, providing insight into both offline and online cultural participation and adolescents' communication about both popular and highbrow cultural topics.

Another limitation is the measurement of digital skills. Although the different items were based on Steyaert (2002), only those measuring instrumental skills are acceptable in terms of reliability. Since 2008, the development of measurements of digital skills has continued. Future research may benefit from including these updated scales, which show better reliability and consistency and describe the required digital skills for current Internet use in a more acceptable way (cf. Hargittai & Hsieh, 2012; Van Deursen, Van Dijk & Peters, 2012; Van Dijk & Van Deursen, 2014).

At the time of the data collection in 2008, nearly all adolescents had access to the Internet. Use of the Internet and the opportunity to access it have increased in the meantime, especially with the introduction of new technologies like the Smartphone and the tablet-pc and with the increased use of different social applications such as social networking sites. These developments support adolescents' social networks, and increase their opportunities to communicate and the number of ways they can express themselves. Their online cultural participation and thus also their communication about culture may have increased, especially with more opportunities to share cultural content (e.g. posting or sharing videos and music online). From our research, it appears that cultural interest and a culturally interested environment are important predictors of online cultural activities. Although using the Internet and digital skills promote online communication about culture, whether adolescents live in a culturally active environment, and whether they are interested in culture, continues to be important. Therefore, we assume that even though we were unable to take the latest technological developments into account, the mechanisms found here can still be applied to today's adolescents.

CHAPTER 5

Determinants of adolescents' online political participation in the Netherlands

Abstract[19)]

Online opportunities to participate in political activities may attract young individuals, who are generally less politically active. Adjusting the civic voluntarism model to adolescents' political engagement, the extent to which these online opportunities do indeed attract young adolescents has been investigated. This was achieved by researching the determinants for offline political participation and, in addition to what has been examined in previous studies, Internet skills and social networks. From a large sample of Dutch 16-to-30-year-olds, it appears that offline and online political participation are explained by similar mechanisms, most notably political interest and recruitment by the network. Furthermore, differences in online participation are caused by another individual resource: those with better Internet skills are more politically active online. As a consequence, adolescents' online political participation seems to be more stratified than their offline political engagement. Based on our findings, we propose an adjusted explanatory model where education level and available time indirectly influence online political participation via political interest, and with Internet skills and political discussions as additional determinants for online political involvement.

5.1 Introduction

Adolescents are less engaged in traditional political activities, including voting and campaigning, than older individuals (Putnam, 2000; Ward & De Vreese, 2011; Zukin et al., 2006). Their ubiquitous online presence is thus

19) A previous version of this article was presented at ICA 2014: Schols, M. and Jansz, J. (2014). Determinants of youth online political participation in the Netherlands. *ICA 2014 Annual Conference*, 22-26 May 2014, Seattle.
The data collection for this study was funded by SIDN, the foundation for registration of .nl domain names.

regarded as an opportunity to engage them politically (Boulianne, 2009; Calenda & Meijer, 2009). Indeed, online activities may be more attractive than traditional offline political involvement, as they take place in a more appealing environment and require different resources. The obvious fact that online engagement takes less money and time may lower barriers to adolescents becoming politically active (cf. Best & Krueger, 2005; Krueger, 2002). Studies in the US do indeed confirm the positive contribution of Internet use to overall political engagement (cf. Boulianne, 2009; Hargittai & Shaw, 2013; Zukin et al., 2006). Furthermore, adolescents' online presence also makes it easier to reach and motivate them to become politically active. Political information can be exchanged through social networking sites, and adolescents can be motivated to engage in political activities online. Indeed, Valenzuela, Kim & Gil de Zúñiga (2012) revealed that social ties do motivate individuals to participate in online political activities.

In contrast to the findings concerning these apparent opportunities of the online world, it has also been found that adolescents' political engagement has not increased significantly. A possible explanation lies in the fact that online political engagement requires a certain level of digital skill, that is, the ability to find and process information and use online applications. Although adolescents are generally regarded as "digital natives", and are consequently considered to be digitally skilled, several studies have contradicted this notion (Hargittai, 2010; Hargittai & Shaw, 2013; Van Deursen et al., 2011). Furthermore, research among older age groups in the US and UK has highlighted the importance of political interest as a prerequisite for political engagement (cf. Boulianne, 2009; Coleman, Morrison & Yates, 2011). In other words, if individuals are politically indifferent, their online political activities are not expected to exceed their generally low level of offline political involvement.

The current study contributes to a better understanding of adolescents' political participation by investigating the extent to which their digital skills, online presence, political interest and social networks contribute to engaging them in online political activities. The research provides further

insight into how adolescents can be reached and motivated to become politically engaged by answering the following question:

To what extent is the online political participation of Dutch adolescents influenced by their online presence, social network, digital skills, and political interest?

The determinants of online political engagement are investigated among a large sample of young Dutch people aged 16-30. This interesting age group covers the digital natives born after 1980, which is the age bracket upon which studies of adolescents' political engagement generally focus (Palfrey & Gasser, 2010; Sloam, 2014). As most research on the issue of the online political participation of adolescents concerns the US, we consider it important to investigate the matter from a different perspective (see also Garrett et al., 2012). To contextualize our study, it is necessary to acknowledge a few differences between the US and the Netherlands. Firstly, the Internet penetration rate among young people in the Netherlands is greater than in the US and reaches 100% for adolescents.[20] The near absence of a selection effect in the Netherlands thus makes these Dutch adolescents an interesting group to examine. Secondly, the countries differ in terms of their political systems and political culture. While power in the US shifts between two political parties, the Netherlands has a multi-party system based on collectives and consensus building. Furthermore, turnout and political trust are higher in the Netherlands, and many Dutch citizens are part of voluntary associations (Van Houwelingen, De Hart & Dekker, 2011; OECD, 2011), while US society has a long tradition of grassroots campaigning (Spierings & Jacobs, 2014; Sloam, 2014).

20) In the Netherlands, 95% of all homes had an Internet connection in 2013, while this figure was 100% for the households with children living in them (CBS, 2013). In the US, 74% of households had Internet access in 2013. This percentage was slightly higher among 15-34 year olds (78%) (United States Census Bureau, 2014).

5.2 Online versus offline political participation

Participation in civic society can be divided into political and non-political involvement. The latter includes activities in the public sphere that do not directly aim to influence the government (Klofstad, 2011). In this chapter, the emphasis is on political participation, which is defined as activities in which citizens engage in politics by keeping informed about the topic and by participating in activities that directly or indirectly influence government or public policy (Verba, Schlozman & Brady, 1995; Zukin et al., 2006). These include voluntary activities like paying attention to and searching for political information, participating in a demonstration, signing a petition, and buying – or refraining from buying – products for political or ethical reasons.

The new opportunities afforded by the Internet have instigated a debate on its possibilities for promoting declining offline political participation. It was expected that these new online forms of engagement would be especially attractive for individuals with fewer resources, those who are unhappy with traditional forms of participation, and adolescents (Boulianne, 2009; Krueger, 2002; Zukin et al., 2006). The prediction that online opportunities increase the participation of these groups is captured by the normalization argument, which states that groups with more resources will adopt technologies first. However, in time, the technologies will become widely adopted and the digital gap will vanish (Norris, 2001).

Predictions regarding the disappearance of differences in online participation rely on a cost-benefit analysis. That is, the increased participation would be the result of a reduction in the costs or resources that online political activities require compared to their offline counterparts (Krueger, 2002). However, the question remains as to what extent this cost-benefit argument holds true, and whether resources for offline participation have become redundant. Contrary to the prediction of normalization and the supposed disappearance of differences in online political participation, it has been argued that the possession of certain resources increases the online advantage. This expectation is captured by the prediction of stratification or reinforcement, which states that well-endowed groups

with more resources and stronger networks will maintain their advantage in society online. This means that resources that promote offline political participation have not become redundant by using a new medium for such involvement. Indeed, they may even increase the advantage online and, consequently, also in society for those possessing these resources (Anduiza, Cantijoch & Gallego, 2009; Coleman et al., 2011; Krueger, 2002; Norris, 2001).

We expected that the Internet would reduce the significance of a number of resources, but not all of them. The most important determinants of offline participation are, as defined by Verba et al. (1995) in their civic voluntarism model, the resources of time, money, and civic skills. Additional determinants are political predispositions and recruitment by the social network. According to this model, higher educated and wealthier individuals generally have more money and time to invest, and acquire more organizational and social skills during civic activities and in their education and working lives, which promotes political participation. Furthermore, being more interested in politics, believing that investment in political activities influences policy or politicians, and being asked to engage in political activities by one's social network also promotes offline political participation (Verba et al., 1995). Meanwhile, in the online world, the barriers of time and money are reduced and may have become redundant. Applying this to adolescents' online political participation, we expected that the amount of free time adolescents have and their socioeconomic status would not influence their online political engagement.[21] Furthermore, recruitment by the social network has become easier, as individuals are able to reach a larger audience in a short space of time by using the Internet. Consequently, it was expected that, especially through the platforms that are popular among adolescents, online requests to engage in political activities would be effective for this group's online political participation, but also, to some extent, for their offline political involvement.

21) It was decided to investigate adolescents' socioeconomic status rather than their available money or income. Adolescents living at home may find it difficult to report their own or the household's (i.e. parents') income. Furthermore, because the household income will be high for those living at home and low for students not living at home, income levels are likely to reflect life-course rather than socioeconomic status or the money adolescents have available for themselves.

H1. *The amount of free time that adolescents have and their socioeconomic status, do not explain differences in online participation among this group.*

H2. *Adolescents who are asked to participate in political activities are more likely to get involved in offline, and especially online, political activities than those who have not received such requests.*

Although time and socioeconomic status may have become redundant for online political participation, it was expected that civic skills and political predispositions would be important determinants of both offline and online political involvement. Adolescents need certain skills in order to engage in political activities, especially when these require social interaction. Verba et al. (1995) defined these as civic skills, which individuals derive from engaging in civic activities. Since adolescents have little experience with voluntary engagement, and have therefore had few opportunities to develop civic skills, we thought it more useful to investigate their communication and social skills in relation to their political behaviour (cf. Hibbing, Ritchie & Anderson, 2011). Many political activities require social interaction, which might be more attractive to adolescents with better social skills. Quintelier and Theorcharis (2013) did indeed find that Belgian students who are more open to new experiences, and who are more assertive and sociable, are more attracted to engaging in offline and online political activities than those who have less interest in new experiences and those who are more introverted.

Although the Internet may lower some barriers to adolescents becoming politically active, it is expected that such online activities are only appealing to those who are interested in politics. In a study of UK adults, Coleman et al. (2011) have shown that political interest is as important for online political participation as it is for offline political involvement. It thus seems as though the medium does not matter, i.e. political activities do not become more interesting simply because they take place online (see also Bimber, 1999). As a consequence, it was expected that political

interest would also be a prerequisite for young people's online political participation.

> ***H3.*** *Adolescents with better social skills are more likely to participate in offline and online political activities.*

> ***H4.*** *Adolescents who are politically interested are more likely to participate in offline and online political activities.*

As well as the resources and determinants proposed by the civic voluntarism model for offline political participation, it was expected that there would be other important determinants of adolescents' online political engagement. That is, online participation would require another skill, the ability to use the Internet, which could even increase differences in the levels of online political involvement. Furthermore, the social network may not only increase political participation through requests to get involved, but also via a more indirect way of engagement in political discussions. Adolescents acquire political information through discussions with their social network, and these create awareness of collective issues and mutual understanding, which may promote political engagement (Hibbing et al., 2011; Kwak, Williams, Wang & Lee, 2005; Lake & Huckfeldt, 1998; Valenzuela et al., 2012).

5.3 An additional skill for online political participation: Internet skills

The high saturation rate of Internet access has shifted attention to differences in Internet use, which is most clearly reflected in the ability of individuals "to locate content on the web effectively and efficiently" (Hargittai, 2005: 372). Although spending more time online increases the use of different online tools (cf. Sonck et al., 2012), and may also increase the likelihood of encountering political information and activities, it was expected that young people's online presence in itself would not be enough to promote their online political engagement. Indeed, more

important for their online engagement is the ability to use the Internet. Previous research among adults in the US has certainly shown that digital skills are related to differences in levels of online political participation (cf. Krueger, 2002; Min, 2010), although the extent to which these skills are related to the political participation of young people has received very little attention thus far (Hargittai & Shaw, 2013).

Common labels such as "digital natives" and the "net generation" suggest that adolescents possess good digital skills because they grew up with new communication technologies and start using them at a young age (Hargittai, 2010; Litt, 2013). However, investigations of digital performance in the Netherlands have actually shown that adolescents do not perform well with respect to all types of digital skill (Van Deursen, 2010, Van Deursen et al., 2011). Digital skills in terms of using the Internet consist of the basic use of the tool, as well as the ability to navigate online; search for, find, evaluate and select information online; and use the Internet for one's own benefit (Van Deursen et al., 2012; Van Dijk, 2006; Steyaert, 2002). While adolescents have demonstrated good skills in the basic use of computers and the Internet, older people have been found to perform better in terms of the evaluation of information (Van Deursen, 2010; Van Deursen et al., 2011). Furthermore, Hargittai and Shaw (2013) found that differences in the levels of digital skill among college students from the US relate to their levels of consuming and producing online political information. Additionally, it is not only finding political information and participating in online political activities that require a certain level of formal and information skills; Internet skills are also vital for participation in online political discussions (cf. Min, 2010). Accordingly, skills in using the Internet may both directly and indirectly relate to differences in online political involvement:

> ***H5.*** *Adolescents with better Internet skills are more likely to participate in online political activities.*

5.4 The social network

The social network is related to political engagement in several ways. Along with being asked to participate, as mentioned in the civic voluntarism model (Verba et al., 1995), discussions with the social network also promote political participation (Lake & Huckfeldt, 1998). Individuals are familiarized with different political views through discussions, and acquire information, are pointed to collective problems, form their own opinions, and are familiarized with opportunities to get involved, resulting in increased political engagement (Klofstad, 2011; Kwak et al., 2005; McClurg, 2003, 2006).

Young people may discuss politics with relatives, good friends, acquaintances and colleagues, both on and offline. As individuals generally have more trust in, and identify more with, relatives and close friends, these social ties may be more effective for political recruitment than acquaintances, fellow students and colleagues (Klofstad, 2011). However, Valenzuela et al. (2012) found that discussions with weak ties promote online political engagement more than those with strong ties. This is explained by the "strength of weak ties" argument, which states that discussions with weak ties provide more new information than communication in closely-knit groups (Granovetter, 1973, 1983; Huckfeldt, Beck, Dalton & Levine, 1995). As a result, weak ties are more valuable for acquiring political information and different opinions, and consequently have a greater mobilizing effect than interaction with strong ties (Valenzuela et al., 2012). Following the weak ties argument, it is expected that:

> ***H6.*** *The political discussions that adolescents have with weak ties promote their online political engagement more than those they have with strong ties.*

A large part of adolescents' social interactions and social network formation takes place in the online world. These interactions have been characterized as being shallower and of a lower quality due to the lack of social cues and anonymity (Anderson & Tracey, 2001). However, the

Internet offers many opportunities for politically interested individuals to engage in political conversations with like-minded offline social ties. While offline networks mainly form through meeting individuals face-to-face, for instance at work, school or in the neighbourhood (McPherson et al., 2001), geographical proximity is not important online (Baym, 2010). Moreover, online, individuals have more opportunities to form social networks based on interests (Baym, 2010) and find others who are politically interested. On the basis of these arguments, online social networks and online social interaction may be more beneficial for political engagement than offline networks and offline interaction.

> ***H7.*** *Adolescents' online political discussions are more likely to promote their online political participation compared to their offline political discussions.*

5.5 Design and sample description

The different hypotheses are tested by researching a large sample of Dutch adolescents (16-30 years old) using the Online Political Participation of Adolescents survey (OPPA, 2013). In June 2013, members of a large online panel were questioned about their political participation and social networks. The respondents were rewarded with points equal to a small sum of money. To compensate for the often non-representativeness of online panels, quotas on age, gender and education level based on the Dutch population were used. Although this method is not enough to produce a representative group of respondents, it does control for the over- or underrepresentation of certain groups, such as the less-educated. The benefits of using data from an online panel are the lower costs and higher efficiency compared to offline data gathering and random sampling.

A total of 1952 respondents filled out the questionnaire. Several answered "I don't know" to the questions about Internet skills. Since the missing values appeared to be at random, listwise deletion was a suitable option. It is certainly preferable to pairwise deletion when comparing different models (Allison, 2009). Imputation of missing values was not considered

to be suitable here, because responding "I don't know" has a different meaning to not answering a question. The data of 1555 respondents were analyzed using Stata, version 13.

Description of variables

Online political participation. The respondents indicated their participation in the past 12 months in nine different online political activities related to national or local politics (cf. Quintelier & Theocharis, 2013). These activities are: visited political websites, placed comments on these websites, watched a political video clip, searched for political information, forwarded political information to friends, donated money, signed an online political petition, gathered signatures among or forwarded a political petition to a social network, and approached a politician online. With the exception of the item searching for political information, the items form one construct (polychoric factor analysis, Eigenvalue = 5.89). As looking for information is theoretically part of the construct and the scale is very reliable, it was decided to include the item (Cronbach's α = .83). Online political participation appeared to be highly skewed, with 43.2% of the respondents not having participated online, while 26.2% of the online politically active respondents indicated that they had participated in one or two activities. As a consequence, a dichotomous variable was constructed to measure whether the respondents were politically active (1 = *politically active online*, 0 = *not politically active online*).

Offline political participation. Offline political participation was measured as involvement in 12 different offline political activities in the past 12 months. These activities were, for instance, participating in protests and attending political events. With the exception of the items donating money and (not) buying products for political, ethical or environmental reasons, the items form one scale (polychoric factor analysis, Eigenvalue = 7.43). As the items are important political activities, and a scale with all political activities has a good reliability (Cronbach's α = .80), it was decided to include all political activities. Similar to participation in online political activities, adolescents' offline political involvement is skewed, with a large element of the respondents indicating that they have participated in none or very few of the mentioned offline political activities. A dichotomous

variable was therefore constructed (1 = *politically active offline*, 0 = *not politically active offline*).

Time spent on obligations. The adolescents indicated how much time they spend per week on mandatory activities (work, study/school and household chores) (Brady et al., 1995). By adding up the time spent on these activities, a variable was measured indicating the time that adolescents spend on work, study or school, and household tasks.

Socioeconomic status. Socioeconomic status was measured as the highest completed education level using a 7-point scale. The measurement used takes into account the progress of students at school.

Social skills. Social skills are operationalized as the personality characteristics of extraversion and openness to experience. We used a brief version of the HEXACO personality inventory, which is shorter and easier to understand for adolescents compared to other measures such as, for instance, the Big Five. This version of the HEXACO test has been tested and is considered to be a valid measurement of personality (De Vries, 2013). The two personality characteristics referred to are each measured with four statements, for instance "I easily approach strangers" (extraversion) and "I have a lot of imagination" (openness to experience), using a 5-point scale ranging from 1 = *totally disagree* to 5= *totally agree*. Two variables were created by taking the average of the corresponding four items.

Political interest. We used a question from the ESS (2010) to measure the respondents' political interest on a 4-point scale. Only a few participants indicated that they were very politically interested. As a consequence, a variable with three levels was created (1 = *not at all interested*, 2 = *barely interested*, 3 = *very/quite interested*).

TABLE 5.1 Descriptive statistics (n=1555)

	M	SD	RANGE	N OF ITEMS
Online political participation	0.57	0.49	0-1	9
Offline political participation	0.51	0.50	0-1	12
Education level	4.99	1.32	1-7	
Time spent on obligations	43.39	21.10	0-112	
Extraversion	3.66	0.65	1-5	4
Openness	3.17	0.69	1-5	4
Political interest	2.00	0.75	1-3	
Online recruitment	0.41	0.49	0-1	3
Internet skills	3.87	0.76	1-5	11
Time online	8.46	6.11	0-24	
Size of offline network	9.82	12.15	0-50	
Size of online network	4.41	6.39	0-31	
Political discussions online	0.35	0.48	0-1	
Political discussions offline- strong ties	2.38	1.50	1-7	
Political discussions offline- weak ties	2.33	1.48	1-7	
Gender[a]	0.52	0.50	0-1	
Age	22.96	4.29	16-30	

[a] Reference category is "male". Source: OPPA (2013)

Internet use and Internet skills. The time adolescents spend online was measured as a summary of the daily average amount of time they spend on a desktop, laptop, tablet, Smartphone and game console. Individuals use different devices at the same time, which resulted in an average of over 24 hours for 82 respondents. In order to reduce the skewness and influence of these outliers, it was decided to set the maximum score at 24 hours a day and recode the 82 values (Kline, 2011).

Since online searching and evaluating information are the most relevant skills for participation in online political activities, and as we investigated digital skills in relation to Internet use, we decided to measure the respondents' Internet skills. These competencies comprise formal Internet skills, reflecting the ability to use the formal hypermedia structure of the Internet (e.g. the use

of hyperlinks and the ability to navigate through web pages), and information Internet skills, referring to searching for (e.g. using certain key words and hypertext), selecting and evaluating information online (Van Deursen et al., 2012; Van Dijk, 2006). We used the Internet skills-scale of Van Deursen et al. (2012), asking the respondents to indicate on a 5-point scale (1 = *never* to 5 = *daily*), with option 6 = *I don't know*, how often they undertake 13 different online activities. The frequency reflects the actual skills better than a self-assessment of each skill (Van Deursen, 2010). Eleven items form one scale with good reliability (polychoric factor analyses: Eigenvalue = 5.83, Cronbach's α = .88); the other two items were not included in the variable. Respondents with one of the 11 items missing were included in the variable, which was created by taking the average of the 11 items.

Recruitment. We used a question from the survey by the Pew Research Center on civic engagement in the digital age to measure online recruitment (see Smith, 2013). This asks respondents whether they have received online requests from their social network to spread political information, donate money to charity or for a political purpose, or sign a petition. The items form one scale (polychoric factor analysis: Eigenvalue = 1.81), with a Cronbach's α of .64, which is not high, but is within acceptable limits. Since the answers on the variable showed a skewed distribution, a dichotomous variable was created (1 = *received recruitment requests online*, 0 = *not received recruitment requests online*). A total of 41% of the respondents indicated that they have received recruitment requests online.

Online and offline political discussions. The respondents indicated with how many people they have discussed political matters online in the past 12 months. Since the variable was highly skewed, with only 35% of the participants having discussed politics with at least one person online, a dichotomous variable was created (1 = *discussed politics online*, 0 = *did not discuss politics online*).

Political discussions with the offline social network were measured by the frequency on a 7-point scale (ranging from 1 = *never* to 7 = *daily*) that adolescents discuss political matters with family or friends (strong ties), and with acquaintances, colleagues or fellow students (weak ties).

Control variables. The size of online and offline networks were included as control variables, since previous studies have found a positive relationship between an individual's network size and political participation (Lake & Huckfeldt, 1998). Network size is measured as the number of people with whom the respondents have discussed personal matters offline and online in the previous 12 months. Several respondents said they had over 70 confidants. To reduce skewness and the influence of outliers, 35 offline and 42 online values were recoded into a maximum of three times the standard deviation from the mean (Kline, 2011). Most respondents said they had larger offline than online networks (61%) with whom they discuss personal matters; only 11% said they had more online confidants. Gender and age were also included as control variables.

Method

In order to test the different hypotheses and gain insight into the determinants of adolescents' online political participation, three steps were taken in the analyses of the data. First, who participates in online and offline political activities was examined by investigating the influence of the determinants formulated in the civic voluntarism model of adolescents' offline and online political participation. Conclusions can be drawn from these results about whether barriers to engaging in political activities are lower for adolescents in the online compared to the offline world. Secondly, the extent to which adolescents' online presence and Internet skills are related to their online political participation was examined. Thirdly, the influence of adolescents' social networks in relation to their online political participation was investigated by looking at the size of their social networks and political discussions. The results are reported in accordance with these three steps.

5.6 Results

The adolescent respondents appear to be quite politically engaged, as 56.7% of them indicated that they had participated in at least one online political activity in the 12 months prior to the survey. The most popular online activities among the adolescents were the more passive ones: searching for political information (41.0% of all adolescents), watching a

political video online (29.8%) and visiting the websites or blogs of politicians or political parties (27.9%).

Offline political activities were slightly less popular, with 50.6% of the respondents having participated in at least one offline political activity in the 12 months prior to the survey. The most popular activity was donating money (34.2%), followed by not buying (20.9%), or buying (16.7%), products for political or ethical reasons.

Combining the offline and online political activities shows that a majority of the adolescents had been politically active in at least one offline or online political activity (70.6%). In particular, 36.7% had been active in at least one offline and one online political activity. Furthermore, some have only participated in political activities online (20.0%), but there is also a group that indicated only having been politically active offline (13.9%).

The civic voluntarism model offline and online

As a first step to gaining more insight into the determinants of adolescents' online participation, the influence of resources and determinants derived from the civic voluntarism model has been investigated. In line with previous studies among older age groups (cf. Lake & Huckfeldt, 1998), higher-educated adolescents are more likely to engage in political activities, both offline and online (see models 1a and 1b, Table 5.2). Contrary to the findings of Verba et al. (1995), the results indicate that adolescents who spend more time on obligations, and thus have less free time, participate more in political activities, both offline and online. However, when adding political interest to the models, the adolescents' education level and the time they spend on mandatory activities are no longer significant (see models 1b and 2b, Table 5.2). An additional analysis showed that time, social skills and education level influence political interest and, consequently, indirectly affect offline and online political participation (see Table 5.3). Higher-educated adolescents, those who are more open to new experiences, men, and adolescents with more obligations appear to be more interested in politics. These politically interested adolescents are more likely to participate in politics both offline and online, confirming hypothesis 4. Accordingly, these findings contradict the

expectation that available time and socioeconomic status do not influence the extent to which adolescents are engaged in online political activities, meaning that Hypothesis 1 must be rejected.

Receiving online requests to spread political information, donate money or sign a petition promotes adolescents' online and offline political participation (Model 1b without online recruitment: McFadden R^2= .08, LR χ^2 (8) =175.94; Model 2b without online recruitment: McFadden R^2 = .19, LR χ^2 (8) = 402.78). This finding indicates a mobilization effect of online recruitment for offline political participation, confirming Hypothesis 2. However, it has to be noted that, due to the cross-sectional nature of the data, this finding could also be a reflection of the higher number of online requests that adolescents who are politically active offline and online receive.

TABLE 5.2 Logistic regression determinants from the civic voluntarism model on offline and online political participation (odds ratios; n = 1555)

	OFFLINE PARTICIPATION		ONLINE PARTICIPATION	
	Model 1a	**Model 1b**	**Model 2a**	**Model 2b**
Gender	1.308*	1.573 **	.789*	1.014
Age	1.008	1.003	.960*	.933 **
Education level	1.096*	1.053	1.110*	1.019
Extraversion	1.257**	1.313 **	.900	.864
Openness	1.765**	1.360 **	1.986**	1.378 **
Obligations (time)	1.005*	1.003	1.006*	1.003
Political interest				
Not interested (ref.)				
Barely interested		1.728 **		3.561 **
Very interested		2.890 **		12.241 **
Recruitment		3.226 **		3.320 **
McFadden (pseudo-)R^2	.04	.13	.05	.23

** $p < .01$ * $p < .05$

Source: OPPA (2013)

As expected, adolescents with better social skills are more likely to engage in political activities, confirming Hypothesis 3 (models 1b and 2b, Table 5.2). Those who are more extraverted are more likely to engage in offline political activities than more introverted individuals. This may relate to the social interaction required in many offline political activities. Those who are more open to new experiences are more likely to engage in both offline and online political activities. As already mentioned, this group is also more politically interested (see Table 5.3, Model 3).

Surprisingly, and contrary to previous findings (cf. Best and Krueger, 2005), the traditional explanations captured by the civic voluntarism model explain a larger part of the differences in online political participation than the differences in offline political involvement (see Table 5.2). This difference is largely due to the greater importance of political interest for online than offline political engagement, which is reflected in a bigger fall in the model fit of online compared to offline political participation when removing political interest from the models (Model 1b without political interest: McFadden R^2 = .11, LR χ^2 (7) = 232.30; Model 2b without political interest: McFadden R^2= .12, LR χ^2 (7) = 256.61). This suggests that political interest is even more of a precondition for adolescents to get involved in online political activities than offline political engagement.

TABLE 5.3 Ordered regression of political interest (odds ratios; n = 1555)

	MODEL 3
Gender	.582**
Age	1.020
Education level	1.221**
Extraversion	1.054
Openness	2.098**
Obligations (time)	1.008**
McFadden (pseudo-)R^2	.06

** $p < .01$ * $p < .05$ Source: OPPA (2013)

The results also indicate that young women are more likely to engage in offline political activities, while young men are more likely to get involved online. However, when controlling for political interest, there are no differences between young men and women in terms of their likelihood of engaging politically online. This may be due to the finding mentioned earlier that young men are more politically interested than young women. Online political activities are also slightly more popular among younger than older adolescents.

Internet skills and online presence

In accordance with previous research (Hargittai & Shaw, 2013), the results show that adolescents differ in their ability to use the Internet, and that this difference is related to the extent to which they are politically active (see Model 4, Table 5.4). Adolescents with better Internet skills are more likely to be politically active online, confirming Hypothesis 5. The level of Internet skills is also indirectly related to adolescents' online political engagement, as these skills are also positively related to their likelihood of engaging in online political discussions (see Model 7, Table 5.5). In other words, adolescents with better Internet skills are more likely to engage in online political discussions and, consequently, also in online political activities. Furthermore, education level also has an indirect influence on online political participation via the level of Internet skills, as an additional regression analysis showed that higher-educated adolescents have better Internet skills, $b = .127$, $t(1550) = 8.32$, $p < .01$. This regression analysis also indicated that girls possess lower levels of Internet skills than boys, $b = -.189$, $t(1550) = -4.99$, $p < .01$.

TABLE 5.4 Logistic regression analysis of online political participation (odds ratios; n =1555)

	MODEL 4	MODEL 5	MODEL 6
Gender	1.108	1.271	1.311*
Age	.945**	.954**	.954**
Education level	.980	.964	.946
Extraversion	.857	.768*	.753**
Openness	1.396**	1.162	1.164
Obligations (time)	1.003	1.001	1.001
Political interest			
Not interested (ref.)			
Barely interested	4.139**	2.550**	2.447**
(Very) interested	14.115**	6.163**	5.738**
Time online	1.028**	1.016	1.019
Internet skills	1.449**	1.314**	1.320**
Size of offline network		1.013*	1.011
Size of online network		1.002	1.005
Online political talk		4.612**	4.272**
Recruitment		1.905**	1.954**
Offline political talk with strong ties		1.296**	
Offline political talk with weak ties			1.411**
McFadden (pseudo-)R^2	.20	.31	.31

** $p < .01$ * $p < .05$ Source: OPPA (2013)

Adolescents' online presence seems to increase their likelihood of engaging in online political activities (see Model 4, Table 5.4). However, a further exploration reveals a more complex picture: their online presence appears to be related to their online political discussions, as adolescents who spend more time online are also more likely to engage in political duscussions (see Model 7, Table 5.5). Accordingly, controlling for engagement in online political discussions produces a non-significant effect of the

time adolescents spend online (models 5 and 6, Table 5.4). This indicates that, rather than merely spending time online, it matters what adolescents actually do online.

TABLE 5.5 Logistic regression analysis of online political discussions (odds ratios; n = 1555)

	MODEL 7
Gender	.594**
Age	.968*
Education level	1.086
Extraversion	1.027
Openness	1.755**
Obligations (time)	1.007*
Time online	1.042**
Internet skills	1.304**
McFadden (pseudo-)R^2	.07

** $p < .01$ * $p < .05$ Source: OPPA (2013)

The social network and online political participation

As a third step in the investigation of the determinants of online political participation among Dutch adolescents, the importance of their social network was investigated. The results show that adolescents' social networks promote their online political participation in several ways. These social network variables also appear to be more important than adolescents' Internet skills, as shown by the small contribution of the latter to the model's fit (Model 5 without Internet skills: McFadden $R^2 = .30$, LR $\chi^2 (14) = 644.86$).

It is not only online recruitment, but also discussing politics with the offline and online social network, that promotes online political participation (see models 5 and 6, Table 5.4). Taking part in online political discussions appears to be more influential for adolescents' online political participation than talking about politics offline (Model 5 without offline

discussions: McFadden R^2 = .30, LR χ^2 (14) = 629.24; Model 5 without online political talk: McFadden R^2 = .26, LR χ^2 (14) = 562.08). This finding confirms Hypothesis 7. A possible explanation is that online discussions are more specifically aimed at talking about politics, and are therefore more efficient in mobilizing individuals to take part than offline political chat (cf. Valenzuela et al., 2012). Another possible explanation is that adolescents communicate online more often with weak ties. Following Granovetter's strength-of-weak-ties-argument, weak ties provide more new information and insights than strong ties, and thus promote political participation more efficiently (cf. Granovetter, 1973, 1983; Valenzuela et al., 2012). However, we have no detailed information about the online discussions, and cannot therefore confirm this "strength of weak ties" argument for online communication. The findings do suggest that the presumed shallowness and lower quality of online discussions is irrelevant, and may even be beneficial, for online political talk and participation.

The results point towards the strength-of-weak-ties-argument for offline political discussions. Having more discussions with weak ties has a somewhat stronger positive effect on online political participation than such discussions with strong ties (see models 5 and 6, Table 5.4). However, the differences in the model fit are very small. Although pointing in the direction of the expectation formulated in Hypothesis 6, the evidence is not entirely convincing. A further investigation showed that this minor difference is not due to the fact that many of the respondents still live at home and possibly discuss politics more often at the dinner table; younger individuals are not more likely to discuss politics with strong ties than those who are somewhat older (Pearson's r = .02, p = .47). We found that adolescents who discuss politics offline with strong ties are also more likely to have political discussions with weak ties (Pearson's r = .77, p < .01). This strong correlation is the reason why the two variables are presented in separate models, in order to avoid problems of multicollinearity.

When controlling for political discussions with strong ties, a larger network is positively related to online political participation (cf. Lake and Huckfeldt, 1998). However, the size of a network is not related to adolescents' online political involvement when controlling for discussions with weak ties.

In fact, the effect of network size is rather minor, indicating that it is more important to investigate whether adolescents actually participate in political discussions and whether they receive requests to take part.

In contrast with the models in Table 5.2, which only contain the determinants derived from the civic voluntarism model, openness is no longer significant when controlling for the social network variables (see models 5 and 6, Table 5.4). Moreover, when controlling for the size of and interaction with one's social network, the results show that individuals who are more introverted are more likely to participate in politics online. It may be that people who are less extraverted and experience more difficulty with face-to-face communication regard online political activities as an interesting opportunity to be politically active and discuss politics. This may be due to the fact that fewer social skills are required for online participation than offline involvement, thus enabling groups with fewer communication skills to become politically active online.

5.8 Conclusion and discussion

Contrary to previous studies (cf. Best & Krueger, 2005), this research shows that determinants of offline participation are also important for online involvement. The results show that online political engagement is highest among adolescents who are politically interested and discuss politics with their social network both online and offline. Furthermore, adolescents' online presence is not enough to get them involved in politics, as their political interest is more important for their online political participation than their online presence. In addition, it matters what adolescents actually do online; their online interactions about politics and the requests they receive from their social network to participate in online political activities appear to be successful and promote both their online and offline political engagement. The extent to which they take part in online political discussions and activities is, however, influenced by their Internet skills. Although adolescents are, on average, competent at using the Internet, the influence of this factor indicates that they may experience difficulties in using the Internet for certain applications, including those for

political discussions and activities. Consequently, the level of their Internet skills may be another obstacle when adolescents attempt to engage in online political activities.

Contrary to previous findings (cf. Lake & Huckfeldt, 1998), we did not find the size of an individual's network to be very important. Rather than opportunities to discuss politics, it is more important to investigate whether adolescents actually seize the opportunity to do so. These discussions take place both online and offline, and with both weak and strong ties. In contrast with studies from the US (cf. Lake & Huckfeldt, 1998; Valenzuela et al., 2012), we did not find convincing evidence of the strength-of-weak-ties-argument in offline political conversations. For adolescents' online political participation, offline discussions with weak and strong ties are almost equally beneficial. As we do not know with whom adolescents discuss politics online, the strength-of-weak-ties-argument could not be evaluated in this study with respect to online political participation. The positive influence of these online discussions on online political participation does indicate that the absence of physical cues is irrelevant for outcomes of political discussions. In fact, we found that those who are less extraverted are more likely to participate in online political activities; the reduced cues in these online activities appear to be especially attractive for people with fewer social and communicative skills.

Although the resources suggested by the civic voluntarism model explain differences in online political participation among adolescents, they have a different influence than is hypothesized in the model. Education level and available time influence adolescents' online political engagement indirectly, as those who are higher-educated and those with less available time are more politically interested and, consequently, participate more in both offline and online political activities. Contrary to the civic voluntarism model, having more obligations is positively related to online political participation. For adolescents, the cost-benefit evaluation of whether one has enough time to become politically active seems to be invalid. The cost-benefit argument of the reduced need for resources for online participation does apply to social skills. Adolescents with better communication

skills participate more offline, while those with fewer social skills are more likely to be active online.

This study has indicated that the civic voluntarism model is applicable to both offline and online political participation among adolescents, although the findings vouch for some adjustments. The resources of education level and available time should be modelled as indirect effects via political interest, and the hypothesized direction of available time, communication and social skills should be formulated in the opposite direction. Furthermore, the model has to be supplemented with Internet skills and discussions with the online and offline social network. Future research could also provide more insight into the influence of interactions with weak and strong ties and the nature of online discussions. By investigating both the content of conversations, and with whom individuals discuss politics online and offline, it is possible to establish the impact of different social ties and the possible goal-oriented nature of online discussions. Individuals with few politically interested ties in their offline network may search for online opportunities to discuss politics. Whether adolescents actually seize this opportunity to find new discussion partners online thus needs to be investigated.

The findings contradict the prediction of normalization, as the higher educated, politically interested and those with better Internet skills are more likely to engage online. Except for social skills, those with more resources maintain their advantage online, confirming the stratification perspective (cf. Sloam, 2014). In fact, the resources that are beneficial for online political participation seem to be concentrated in a certain group. The higher-educated are more interested in politics and they possess better Internet skills, meaning that their advantage in terms of political participation is even larger online than offline. This also means that the lower-educated, who show less interest in politics, experience even more difficulties in their political participation online than they would offline, because of their poorer Internet skills. We therefore conclude that political participation is stratified even more online than it is offline. It should be noted, however, that adolescents' social networks, and especially their interest

in politics, are more important determinants of their online political activity than their level of Internet skills.

The findings that offline differences are reflected in adolescents' online political participation, and that a significant number of the adolescents in this study combine online and offline activities, indicate that online activities are more of an addition than a way to attract new groups of participants. Except for less extraverted individuals, we did not find any unambiguous evidence that adolescents are more attracted to new forms of political engagement. We do have some indications that being asked to participate in politics online has a strong mobilizing effect, although further research is required on this matter. Longitudinal research among US college freshmen has indicated that receiving recruitment requests promotes an individual's political participation over time (Klofstad, 2011). Nevertheless, caution is required when it comes to causal inferences with cross-sectional data. It could also be that individuals who are politically active online receive more recruitment requests and discuss politics more often with their social network. Another caution is that we used an online panel, which could have led to the exclusion of individuals who are very inactive online. Nevertheless, a benefit of our data gathering method is that we were able to investigate a large group of adolescents from different socioeconomic groups.

Although online political participation has not attracted many politically inactive adolescents in the Netherlands, which is rather similar to the position in the US, Zukin and colleagues (2006) and Harris, Wyn and Younes (2010) have reported that young people are not turning away from politics; they just engage in different ways. As seen in our study, there is a significant group of adolescents participating in offline and online political activities. This may be due to the inclusion of some non-conventional forms in our measurement of political involvement, including political consumerism (Ward & De Vreese, 2011). This appears to be a popular form of political engagement among adolescents, as approximately one in five indicated that they have bought, or not bought, products for ethical or political reasons. Future research could explore more of these non-conventional forms of political engagement and further reflect on the measurement of offline and online political participation. Moreover, as we have a different

explanation model compared to previous studies in the US, it is not possible to state whether the differences and similarities in findings can be attributed to cultural differences between the US and the Netherlands. Further comparative research is obviously needed if we are to gain more precise insight into the similarities and differences. We interpret our results as indicating that most relationships operate in similar ways in the two countries, despite their different political systems.

"Our 16 year old son is a real adolescent; if you ask him about what's going on, he always answers with: 'nothing special'. Often that's the end of our conversation."

"At breakfast he's reading a magazine. When I tell him that shared meals are for sharing thoughts, he answers: 'That's what Twitter is for!' "

(NRC [Dutch daily newspaper], 'ikje', 27 February 2012)

CHAPTER 6

Conclusion

Adolescents spend a significant part of their day online, whether playing games, accessing and uploading content, or communicating with their friends (Jansz et al., 2015; Schols et al., 2011; Sonck & De Haan, 2015). Some warn that this high Internet use may result in detached relationships and a fragmented society (cf. Turkle, 2011). The teenage boy in the quote, who expresses his feelings online rather than in person or with his mother, illustrates the concern that exists about distant, shallow and impersonal online communication. During their everyday online activities, adolescents may encounter harmful content and negative experiences (Livingstone et al., 2011). However, most of the time, they use the Internet successfully for their own benefit and entertainment. Despite these positive outcomes, the negative consequences of adolescents' Internet use seem to dominate both popular and, to a lesser extent, academic discourse. This dissertation aims to shed light on the balance between the positive and negative outcomes of adolescents' everyday Internet use by empirically investigating how it is related to social cohesion. Accordingly, the main research question in this dissertation is:

How is the everyday Internet use of Dutch adolescents related to social cohesion?

The studies in this dissertation have been conducted in the Netherlands, thus providing a different research context from the US, where most of the research about the Internet use of adolescents has been conducted. The main difference between the countries lies in the lower number of Internet connections in the US. Indeed, the Netherlands is one of the global leaders in terms of the diffusion of the Internet in the home. In particular, in 2013, 100% of Dutch households with children were connected to the Internet, predominantly via broadband (CBS, 2013). Meanwhile, in the US, only 78% of 15-35 year olds lived in a home with an Internet subscription in 2013 (United States Census Bureau, 2014).

Social cohesion is defined as the "sticking together" or social glue of groups and society. A dissertation based on several empirical studies is an excellent opportunity to investigate this multidimensional concept by addressing a number of its dimensions. Following authoritative definitions, six dimensions of social cohesion are distinguished: social networks and social capital, identity, shared values and norms, social inclusion and exclusion, participation and social order and control. These dimensions are interrelated and provide different, yet meaningful, contexts to examine in terms of Internet use. Particularly meaningful and relevant when investigating adolescents' Internet use are the three dimensions of social networks and social capital, social inclusion and exclusion, and participation. From the perspective of "affordances", which are the functional and relational factors that frame the possibilities of Internet use (Gibson, 1979; Hsieh, 2012; Hutchby, 2001), it appears that the Internet affords adolescents several opportunities related to social cohesion. The abilities to connect with their social network everywhere and at any time, and to engage in activities that promote social inclusion in peer groups, are the most important affordances embraced by adolescents (cf. Awan & Gauntlett, 2013; Reich et al., 2012; Ridge & Millar, 2000). From the perspective of educators and governments, the Internet may afford adolescents to participate in the wider society. It is a rich source of political and cultural information and affords adolescents numerous ways to engage in political and cultural activities. While adolescents use the Internet to interact, and for activities that promote their inclusion in social networks, they seem less inclined to engage in online societal activities (cf. Ward & De Vreese, 2011). Consequently, the three dimensions of social cohesion that have been scrutinized in this thesis to investigate how adolescents' Internet use is related to social cohesion are: social networks and social capital, adolescents' social inclusion, and their participation in society.

The opportunities that the Internet gives adolescents, and the extent to which they actually seize them, provide an interesting tension, which gives rise to questions about why adolescents differ in their offline and online social and societal engagement. Since their Internet use is not the only influencing factor, other aspects also have to be taken into account. As a result, the following sub-questions were formulated:

1. *How is the everyday Internet use of adolescents related to their social networks, social inclusion and participation in society?*

2. *To what extent are differences in Internet use and skills among adolescents related to their online participation and social relationships?*

3. *Which factors other than Internet use are relevant in explaining differences in social cohesion among adolescents?*

To answer these questions, four empirical studies were conducted among adolescents in the Netherlands, which provided a broad insight by focusing on different dimensions of social cohesion. Moreover, by using large-scale and nationally-representative data, these studies counterbalance the increased fragmentation of most media research. Indeed, as Lievrouw & Livingstone (2006) observed, there is an increase in specialized, separate academic niches on related topics that are not being linked. In addition, scholars often investigate small groups and commonly use non-representative samples.

In the first two studies of this dissertation, the question how adolescents' Internet use is related to their social networks and social inclusion was investigated by focusing on the relationships with their most important social ties: their parents and their peers. The third and fourth studies explored adolescents' online engagement in society by examining their online cultural and political participation. The main conclusions drawn from the four studies are discussed in the next section. Then, in the final part of this chapter, we present a discussion of the key future challenges for research and society regarding adolescents' Internet use that arise as a result of the findings of this dissertation.

6.1 Adolescents' everyday Internet use and social cohesion

The discussion of the main findings is guided by the three sub-questions that were formulated in this dissertation, starting with the first: *How is the everyday Internet use of adolescents related to their social networks, social inclusion and participation in society?*

6.1.1 Networks, inclusion and participation

Adolescents' everyday Internet use promotes their social inclusion in peer groups and participation in society

Adolescents spend a significant part of their day online, whether communicating with friends, searching for information, watching video clips or adding content. Their engagement in various online social activities is positively related to their inclusion in peer groups (Chapter 3). Adolescents who use the Internet to communicate with their social network offline are also more involved in peer groups. Going further than previous studies, we were able to investigate differences in social participation by ethnicity. The results showed that adolescents with non-Western origins participate less socially than those with a Western background. However, this former group's engagement in online social activities is particularly beneficial for their social inclusion, as their online social engagement has a more positive influence on this than is the case for adolescents with Western origins (Chapter 3).

Adolescents' online presence and online social activities are also positively related to their engagement in cultural and political activities (chapters 4 and 5). Those who spend more time online communicate more about both popular and highbrow cultural topics. When it comes to online political engagement, it is not their online time, but their involvement in online discussions about politics, that is positively related to their online engagement in political activities. Similar to studies about recruitment for offline political participation (cf. Klofstad, 2011), our results showed that being asked to engage in political activities online is positively related to online political participation. Furthermore, adolescents' engagement in

certain online activities reduces the level of familial conflict and discussions about their online behaviour. In line with previous studies by Mesch (2003, 2006a) among Israeli youths, the findings in Chapter 2 have indicated that adolescents who spend more time online doing school-related activities have a better relationship with their parents.

The findings in this dissertation show that the Internet facilitates adolescents' engagement in peer groups and cultural and political activities, promoting their social inclusion and overall involvement in society and, consequently, social cohesion. The findings also indicate that investigating the sheer duration of Internet use provides only a limited insight into the consequences or outcomes thereof; it matters what kind of activities adolescents undertake online and what the aim of their engagement in them is.

…but it is not all positive

Although adolescents' Internet use is positively related to their inclusion in peer groups and participation in culture and politics, it was also found that those who play more games are less integrated in peer groups (Chapter 3). Furthermore, adolescents who spend more time online have a worse relationship with their parents, confirming the time displacement hypothesis (Chapter 2). Similar to findings by Lee and Chae (2007), it was found that Internet use displaces watching TV, which is often a shared activity in families. In contrast to previous studies, the results showed that adolescents who spend more time online report talking less to their parents. Although other studies about peer relationships have not confirmed the displacement of social activities by online activities, (cf. Valkenburg & Peter, 2007; Vergeer & Pelzer, 2009), our results do confirm the displacement hypothesis for family activities. In other words, the results point towards a displacement of family activities and conversations by online activities. This difference in results could be due to the preference of adolescents for using the Internet above spending time with and talking to their parents, or the possible increase in disputes with parents when a significant part of the day is spent online. The finding may, however, also

work in the opposite direction, with adolescents who have a worse relationship with their parents spending more time online as a result.

The finding that Internet use is related to more social inclusion may also come with fewer positive experiences among adolescents. While engagement in online social activities can be regarded as an important resource for adolescents when it comes to participating in peer groups, this involvement may also be a certain standard that adolescents need to meet to engage in and be included in these groups. This may be experienced by some as a burden. In addition, previous research has shown that in their online communications, adolescents continue their offline discussions and share their everyday experiences and interests (cf. Awan & Gauntlett, 2013; Reich et al., 2012). This could result in exclusion from peer groups if young people are unable to participate in these online activities and, consequently, miss out on online discussions.

Although the general finding is that adolescents' Internet use contributes to their integration in social networks and engagement in societal activities, we found large differences among this group in terms of both their Internet use and participation in social networks and society. These differences are most clearly seen between boys and girls. While the former spend more time online than the latter, they are less engaged in peer groups, leisure activities and online cultural and, to some extent, also online political activities. Previous studies in the US (Hargittai & Shaw, 2013; Zukin et al., 2006) and Belgium (Quintelier & Vissers, 2007) have found that young women are more likely to engage in offline politics, but when it comes to online political engagement, Hargittai and Shaw (2013) and Conroy, Feezell and Guerrero (2012) found that young men get more involved. In contrast, we found that young Dutch women are more active in both offline and, to some extent, also online political activities. Furthermore, there are clear differences in adolescents' ability to use the Internet and among those from different socioeconomic groups, which are further discussed in the following sections. These findings contradict notions that regard adolescents as a single, homogeneous, digitally savvy group.

An adolescent's social network is an important resource for social cohesion

Social cohesion consists of multiple dimensions, of which the dimension of social networks and social capital is especially prominent in research on Internet use. The results in this dissertation confirm the findings of previous studies that adolescents' online social activities are beneficial for their offline inclusion in peer groups (Chapter 3; Subrahmanyam & Greenfield, 2008; Valkenburg & Peter, 2009a, 2009b). Furthermore, adolescents create social connections at both school and in their neighbourhood. Going further than previous studies, it was also found that their part-time jobs help them to build social networks, resulting in greater social inclusion (Chapter 3).

The social network is not only a dimension of social cohesion; it is also an important resource for enhancing it. This is most clearly seen in adolescents' online societal participation, as they are successfully drawn into political activities by their social networks. This online "recruitment" takes place in the form of requests to spread information, sign petitions and donate money (Chapter 5). The size of adolescents' offline and online social networks is not influential, but their social networks' interests and the communication that is related to societal engagement is important (Chapter 5). In other words, adolescents are more likely to engage in activities when their friends express similar interests. Moreover, their cultural and political participation is higher when their peers are also culturally active or eager to discuss politics (chapters 4 and 5). These discussions with the social network, both offline and online, and with strong and weak ties, create awareness and act as a trigger for adolescents to engage in political activities. As a consequence, their network is an important resource or capital for engagement in society.

6.1.2 Differences in Internet use and skills

It matters what kind of activities adolescents undertake online, as these are differently related to their relationship with their parents, their inclusion in peer groups and their participation in society. In answering the second research question - *To what extent are the differences in Internet use and*

skills among adolescents related to their online participation and social relationships? - the studies showed that adolescents' skill in using the Internet also has consequences for social cohesion.

Digital skills are a source of stratification

Differences in cultural and political participation are generally seen among socioeconomic groups, with the higher-educated participating more in both cultural and political activities. Around the turn of the century, optimists expected that the increased opportunities of the Internet would lower the barriers to participation in society and consequently reduce inequalities (Norris, 2001). Subsequent research, including the studies reported in this thesis, has shown that this prediction of normalization in terms of Internet use does not hold true and is more complicated in reality.

The normalization prediction was made at a time when not everyone had access to the Internet. In the Netherlands, an earlier tendency to get online became solidified when 100% of homes with children, including single-parent households, were connected to the Internet by 2013 (CBS, 2013). Despite this fulfilment of the normalization prediction regarding Internet access, differences in Internet use have persisted. Adolescents, for example, differ in the time they spend online, their online activities, motivations and aims when using the Internet, as well as with respect to their digital skills. Boys, older adolescents and those of non-Western origin, for instance, appear to spend more time online (Chapter 3). Differences in online activities are, for instance, seen between those with higher and those with lower-educated parents and gender; adolescents with higher educated parents spend more time online on school-related activities (Chapter 3) and on online cultural activities (Chapter 4). The latter are also more popular among girls (Chapter 4). We found that these differences in online activities appear to be strongly related to an adolescent's interests. Similar to Coleman et al. (2011), the results showed that disinterested youngsters are not more likely to engage in political activities online than they are offline (Chapter 5). Furthermore, the importance of interest for engagement also holds true for online cultural participation (Chapter 4). In fact, adolescents' online cultural involve-

ment is stratified by their socioeconomic background, as those with higher educated parents are more likely to be interested in culture and, consequently, also more likely to engage in online cultural activities.

As well as interest, it was found that adolescents' political and cultural engagement differs by their level of digital skills (chapters 4 and 5). In line with Hargittai and Shaw (2013), the results of Chapter 5 have shown that differences in levels of digital skill among adolescents result in different levels of online political engagement. We have established that digital skills are also a prerequisite for participation in online cultural activities (Chapter 4). Adolescents' skills in using devices, and their ability to navigate online and search for and evaluate online information, differs, leading to differences in engagement in online political talk, online communication about culture and online political participation. In other words, online cultural and political activities are less accessible to adolescents who experience more difficulties in using the Internet (chapters 4 and 5). The groups with fewer digital skills are the lower-educated, who have fewer formal and information Internet skills (Chapter 5), and girls, who experience more difficulties with operational, formal and information Internet skills than boys (chapters 4 and 5).

These differences in digital skills appear to have important consequences for the societal engagement and social cohesion of adolescents. Since the factors causing differences in adolescents' cultural and political engagement accumulate, it appears that the digital skills contribute to the further stratification of online societal participation. In other words, since the level of digital skills is lower among the less well-educated, which is the group that is also less interested in culture and politics, this group runs the risk of lagging behind in terms of participating in society. Accordingly, these findings are in line with the stratification perspective regarding online differences, which states that individuals with an advantage in the offline world maintain or even increase their advantage online, due to the possession of more of the relevant resources (Norris, 2001). Furthermore, the hindrance of digital skills may also account for domains of online participation other than cultural and political engagement. As put by Van Dijk and Van Deursen: "digital skills are the key to the informa-

tion society" (Van Dijk & Van Deursen, 2014: 45). In other words, online engagement is increasingly important in today's information society, and certain groups may risk exclusion if they lack the skills to engage online. Since the group that lacks digital skills also possesses fewer resources, shows less interest and engages less offline, this risk becomes even more prominent. As a result, rather than bringing groups together, it seems that the distance between them increases online, which reduces overall social cohesion in society.

Girls are also a group that has fewer digital skills, but appears to counterbalance this with online societal engagement. In other words, although girls are less digitally skilled, they do engage more than boys in online cultural activities and also seem to be somewhat more engaged in online political activities. Furthermore, there is a small group of adolescents that is not politically active offline, but does engage in online political activities (Chapter 5). In addition, Chapter 4 showed that there is also a group of adolescents that does not participate in offline cultural activities, but does engage in online conversations about culture. As we do not know adolescents' motives for participation or the content of their online cultural conversations, further research is needed to examine whether this finding reflects a mobilization effect of Internet use, and whether spending more time online and encountering cultural information actually engages adolescents in online cultural activities. Nevertheless, our findings together point more towards the relevance of the stratification perspective regarding online participation than the normalization and disappearance of differences in online engagement.

6.1.3 Other factors besides Internet use

The findings of the four studies in this dissertation indicate the importance of adolescents' interests when it comes to explaining their participation in online cultural and political activities. The answers to the third research question - *Which factors other than Internet use are relevant in explaining differences in social cohesion among adolescents?* - amount to the following:

Adolescents' Internet use and digital skills have a relatively limited influence on social cohesion

Although the differences in digital skills may have major consequences for adolescents' social cohesion, because they reinforce the differences caused by other factors, digital skills are a less important predictor of adolescents' online societal engagement than their cultural and political interests (chapters 4 and 5). Moreover, adolescents' everyday Internet use is a relatively less important determinant of social cohesion compared to demographics, socioeconomic level, personal characteristics and personal interests.

Firstly, we found clear differences in demographics. The time that adolescents spend with their parents differs significantly by gender and age; girls and older adolescents spend less time with their parents than boys and younger adolescents (Chapter 2). Similar to Larson et al. (1996), we did not find that these differences in family time relate to the quality of the parent-child relationship; girls and older adolescents do not have a worse relationship with their parents than boys and younger adolescents. As already mentioned, the results indicate a gender divide in online societal participation, with girls engaging more in online cultural, and also to some extent online political, activities (chapter 4 and 5). Girls are also much more involved in their peer groups and in formal leisure activities than boys. Furthermore, online political activities are more popular among younger adolescents (Chapter 5). Going further than previous studies, we found a lower level of social inclusion of adolescents with non-Western origins (Chapter 3). Although there may be cultural factors at play, this lower social inclusion of non-Western immigrants may also reflect socioeconomic differences.

Secondly, adolescents' socioeconomic level also appears to relate to differences in social cohesion. Participation in formal social activities, such as sports and hobbies, is lower among adolescents from low-income households, among which non-Western immigrants are overrepresented. Furthermore, higher-educated adolescents are more politically interested and consequently engage more in online political activities. Moreover,

adolescents with higher-educated parents are more interested in culture and, consequently, also engage more in online conversations about popular and highbrow culture. Higher-educated adolescents are also more likely to engage in online conversations about highbrow culture. Unlike previous studies, which only focused on offline cultural participation or online popular culture (cf. Hargittai & Walejko, 2008; Van Wel et al., 2008), we were able to distinguish online engagement in highbrow culture from engagement in online popular culture, showing that the online discussions of higher-educated adolescents are more likely to be about highbrow culture than those of their lower-educated counterparts.

Thirdly, adolescents' sociability, extraversion and openness appear to be positively related to social cohesion. The relationship with parents is better among more sociable adolescents (Chapter 2). Indeed, instead of displacing conversations with their parents, it was found that adolescents who talk more to their peers also talk significantly more about personal issues and current affairs with their parents. Furthermore, the preferred means of communication is different for adolescents who score higher on extraversion and openness. While offline participation seems more attractive to adolescents who score higher for the characteristics of extraversion and openness, those who are more introverted appear to engage more in online political participation (Chapter 5).

Fourthly, most of the differences in online cultural and political participation are explained by adolescents' personal interest in culture and politics. These interests are influenced by their strong ties. Parents transmit norms and values that shape the preferences and interests of adolescents, but when they grow older, their peers acquire influence in this regard. Previous studies have shown that these socialized preferences and interests largely determine adolescents' offline activities and engagement in society (cf. Ganzeboom, 1989). We found that these interests also largely determine online societal participation by showing that the cultural preferences of both parents and peers promote adolescents' engagement in online cultural activities. Young people with culturally active peers engage more in online conversations about culture (Chapter 4). Furthermore, adolescents who are recruited by their social networks are more likely to engage

in offline and online politics. Their online political engagement is also promoted by online and offline political discussions (Chapter 5). Although their friends may gain influence in terms of the formation of preferences and their activities, partly at the cost of parental influence, the results show that parents' transmission of values and norms remains influential (Chapter 4).

Adolescents use the Internet as a tool to maintain social relationships in the current networked society

The Internet is by no means an autonomous actor influencing social cohesion. For their part, adolescents use the Internet for particular activities and to maintain relationships with both their parents and peers. Differences in how adolescents use the Internet, their ability to do so and the outcomes of their online activities are shaped by individual characteristics, digital skills, individual preferences and their social network.

Adolescents' maintenance of social networks is captured by Wellman's (2001) notion of networked individualism (see also Rainie & Wellman, 2012). This describes the participation of individuals in the current networked society as taking place more in looser social networks than closely-tied groups. The communication with strong and weak social ties is less group focused and more person-to-person oriented. Furthermore, relationships are less hierarchically structured, which is especially visible in the more egalitarian family communication. Maintenance and communication with the social network is easily accomplished through face-to-face contact and increasingly through social media.

In this networked society, adolescents communicate with their social networks regardless of time and space. This means that even when they are at home, they are in constant contact with their friends. What is more, when adolescents are with their friends, their parents can reach them and vice versa. Consequently, families, especially those with somewhat older children, can no longer be characterized as closed systems that are influenced or invaded by outside influences like the Internet (see Chapter 2; Cox & Paley, 1997, 2003). Instead, the Internet is a tool for family mem-

bers to maintain their shared agendas and communicate when they are not at home, but to also communicate with others outside the household when they are at home (Chapter 2; Kennedy & Wellman, 2007; Rainie & Wellman, 2012). Although the nuclear family is still a safe haven and base for many adolescents, families are increasingly transformed into open social networks, especially when the children are at an adolescent age.

The trend towards more egalitarian relationships within the family may also change the transfer of norms and values by parents to their children. Although the question remains as to whether socialization has ever been completely top-down, the transmission of values and norms by parents and teachers nowadays is surely no longer a process by which adolescents are just the subject of socialization by parents and teachers (McLeod, 2000). Particularly when they are in their teens, media and peers are increasingly influential in terms of how adolescents form their interests and preferences. Arnett (1995) has already stated that having media as a socializer brings the benefit of being able to select information and search for content in line with preferences and values. Adolescents may also come across information via media or friends that is different to what they hear from their parents and teachers. As a consequence, both their peers and the media shape their preferences and interests (see also Chapter 4). However, the transmission of cultural capital from parents to children is still important, as we found that adolescents' cultural preferences are largely influenced by their parents' predilections. We did not identify any influence of cultural contributions by schools, as extra investment in cultural education by some schools did not result in the greater overall online cultural participation of their students.

Accordingly, in the current networked society, the values and norms, and possibly even interests, that adolescents have been brought up with, and which they acquire during interactions with peers, are their points of reference upon which they rely in their personal development. Moreover, the Internet provides an excellent opportunity for adolescents to experiment and discover what they prefer within and without this framework (Baym, 2010).

6.2 Future challenges regarding adolescents' Internet use

> *"One of the most exciting promises of the new media is that they open the possibility of much higher levels of participation in many aspects of social life. [...] they provide the possibility of extending the degree to which citizens are able to decide their futures far beyond the routines of periodic elections."*
>
> (European Science Foundation, 2014: 23)

In its early days, there were many promises, hopes and fears about future opportunities as a consequence of the Internet. The empirical studies conducted in the past two decades have shown that many of these were too optimistic, while most fears were unfounded. Although not as outspoken as during the early days of the Internet, there are still many optimistic and pessimistic voices about the outcomes of Internet use. The quote of the European Science Foundation above signifies this new wave of positive expectations by pointing to the many opportunities for engagement that the Internet gives citizens. It is vital that such expectations take into account the relative importance of Internet use, as it is not the Internet itself, but how individuals use it, that frame the affordances and determine the outcomes of its use. As this dissertation has shown, it is not the opportunities offered by the Internet, but whether individuals are interested in and able to take advantage of them that is crucial; the mere existence of a technology does not mean that it resolves or causes problems (boyd, 2014; Jansz, 2010).

In this final section, the implications of the relative importance of Internet use are discussed further, focusing on the consequences and future challenges of adolescents' everyday use of the Internet in terms of both society and research.

The Internet does not resolve – but is also not the single cause – of inequalities and problems.

As formulated by the European Science Foundation, the Internet has the potential to distribute information, which may contribute to solving problems and reducing differences. Several of the findings in the empirical chapters of this dissertation are in line with this positive stance towards the impact of Internet use. For instance, the online continuation of everyday conversations with peers increases inclusion in peer groups and promotes online political engagement. Furthermore, online participation seems particularly attractive to less extravert adolescents and beneficial for those who are less socially included (chapters 3 and 5). As a result, the building of social capital through online engagement is not only relevant for individuals who are looking for specific communities that share their interests or, in a specific example, medical condition (Barak et al., 2008; Baym, 2010; Van Uden et al., 2009). It is also relevant for groups that are less socially included and individuals with fewer social skills.

The outcomes of Internet use are the result of a combination of an individual's characteristics, resources, personal interests, reasons for using the Internet, digital skills, and online activities. In fact, their individual characteristics, resources and personal interests are more important in determining their online engagement and its outcomes than the time they spend online, their digital skills and online activities. Adolescents do not necessarily turn into a different person when they go online; they do not or cannot disregard their preferences, interests, resources, norms, and values in the online world, and so engage predominantly in activities that are line with their personal interests (boyd, 2014). This means that simply having online opportunities does not increase adolescents' cultural or political participation. Although the optimism of the European Science Foundation about the possibilities of online engagement is certainly justified, and the Internet offers numerous online opportunities to participate in societal activities, one has to be realistic about the extent to which adolescents actually seize these opportunities.

The Internet is not the solution to, but is also not the cause of adolescents' problems. Although the results of the empirical chapters have shown that

adolescents' everyday Internet use positively contributes to social cohesion, other studies have shown that there is a group that encounters negative experiences online and is also bothered by them (Livingstone & Haddon, 2009). However, adolescents run the risk of experiencing harassment in both the online and offline world. Furthermore, they use the Internet to experiment, which is part of their development (Baym, 2010; Cassell & Cramer, 2009). When experimenting, adolescents may not always be aware of the results of their online behaviour (Cassell & Cramer, 2009). Although this behaviour may have major consequences, it is important to keep in mind that it is not the Internet itself, but predominantly personal preferences and reasons for using the Internet, that frame online behaviour and its effects.

In order to guide adolescents' online activities, parents and educators should be aware of the needs of these young people and acquire knowledge about the type of online activities they engage in. By facilitating online activities that have positive outcomes, parents and other educators may promote positive consequences and possibly also prevent negative online experiences. In addition, instead of leaving it to the major media outlets, this facilitation by parents and educators also results in their active engagement in socialization, the transmission of important knowledge to them, and the forming of skills. If parents and educators are open about online risks and receptive to talking to adolescents about negative issues, this may increase the extent to which adolescents want to talk about their online experiences. Furthermore, this may help parents and educators to refrain from the tendency to care for children and consequently regard them as innocent and passive users of technologies (boyd, 2014; Facer, 2012; Livingstone, 1996). This protection and caring tendency may lead to the imposing of restrictions on adolescents' online activities and the time they spend online, which does not resolve the causes of negative outcomes of Internet use. Cassell and Cramer (2009: 64) have shown that girls particularly experience the consequences of certain restrictions, which, as they conclude, "...is obscuring the positive benefits of the Internet".

This facilitation of adolescents' online activities is also beneficial when it comes to promoting their societal engagement, as this dissertation has shown that simply placing cultural and political content online will not

lead to more adolescents engaging in politics and culture (see also Schols et al., 2011). Furthermore, as argued by Morozov (2009) among others, online engagement may not have as much impact as offline engagement, and could even be less effective. However, adolescents may regard their online participation as equally productive. Future research should investigate how adolescents perceive their online engagement and how they can be motivated to actually seize the opportunities that matter for their societal involvement. As the findings from this dissertation indicate, their parents and peers play a major role in the fostering of their engagement.

The use of large-scale, high-quality surveys will provide better insight into the relative importance and consequences of Internet use.

Many of the extreme euphoric and dysphoric claims about the social consequences of Internet use were disproved when they were studied empirically. Kraut and colleagues (2002), for instance, have disproved their own previous findings that spending more time online reduces the size of social networks (Kraut et al., 1998). Nevertheless, popular and academic discourse tend to be rather polarized, with very positive, and especially very negative predictions about the consequences of Internet use for social networks and participation prevailing. The quote of the European Science Foundation at the beginning of this section is an example. Furthermore, Turkle (2011) has argued that online communication invades and distracts from real-life activities, which she understands as person-to-person interaction. This invading of communication in real-life activities takes place, for instance, when one receives and answers a text message during family meetings. As a consequence, Turkle (2011: 280) concludes: “The ties we form through the Internet are not, in the end, the ties that bind. But they are the ties that preoccupy.” The networked family, she argues, ends up being “alone together”; family members may very well be together in the same locality, but at the same time alone in how they connect.

A more optimistic picture is painted by this dissertation. Using large-scale surveys, the results from the four studies in this dissertation reject predictions of negative social outcomes of the Internet use of adolescents. Indeed, the Internet use of this group promotes their social inclusion and

facilitates their participation in cultural and political activities. Much like the previous disproving of many euphoric and dysphoric claims, this dissertation has shown that current predictions also require critical reflection. The use of large-scale, representative surveys enables the reliability of general claims and predictions to be evaluated, and insight to be gained into the causes and consequences of Internet use and its relative contribution to certain outcomes. At present, there are surveys available that are used in both scientific and popular discussions. However, these do not always meet the required quality standards. A major issue with many surveys is that the respondents are not a good representation of the target group. Relying on convenience samples and web tools, these surveys target only a selection of the population under study, for instance students. Consequently, they exclude important groups, including the lower-educated and ethnic minorities. Although these studies based on convenience samples may provide insight into certain behavioural mechanisms, the findings are not representative of all adolescents. In fact, the excluded groups are the most interesting to investigate when it comes to studies about Internet use or social cohesion. As has been shown in this dissertation, lower-educated individuals and ethnic minorities experience more difficulties in using the Internet and have a higher risk of social exclusion (see chapters 3 and 5).

A significant part of the research focusing on Internet use and social relationships or societal participation has a qualitative design. Although these studies provide insight into the reasons why adolescents use the Internet, their design does not allow the relative importance of Internet use or the occurrence of behaviours among adolescents in general to be established. In addition, this research has often focused on online behaviours on specific platforms, including Facebook, Twitter or Instagram. In contrast, the studies in this dissertation have instead focused on the general types of activity that adolescents engage in, such as time spent on communication and on gaming. By focusing on these more general activities, this method is more inclusive than platform- or case-based research, and allows more general conclusions to be formulated about the outcomes of what adolescents do online every day. This also prevents the focus on platforms that have little duration among adolescents.

Representative, large-scale surveys are costly, which is one of the reasons why many studies rely on web tools and selective samples. It is also the reason why a subsample of an online panel was questioned in Chapter 5. Although not completely representative, using quotas does contribute to the inclusion of groups that are less easy to target and the gaining of insight into outcomes among adolescents. Accordingly, aiming for a representative and high-quality sample enables the reliability of arguments and predictions to be investigated. Nevertheless, the aim should be to use large-scale, representative surveys, as these include all groups in society and consequently allow findings to be generalized to the wider population and the relative weight of the impact of Internet use on social outcomes and society to be established. As a result, high-quality, large-scale, representative studies will provide empirical evidence that contributes to the quality of both academic and popular discourse.

Offline and online engagement: worlds apart?

Adolescents grow up in a media saturated world, in which they are almost permanently connected to the Internet. Consequently, the traditional distinction between online and offline evaporates, resulting in a situation where online and offline activities tend to merge. The integration is particularly facilitated by the ubiquity of mobile media (Smartphones, tablets, laptops), the increasing proliferation of Wi-Fi networks and communication applications such as WhatsApp. The combination of these ICTs and low financial thresholds for most allows Dutch adolescents to be constantly connected with their social network. As the quote at the beginning of this chapter illustrates, being connected to the Internet is, for many, synonymous with being connected to their friends. Accordingly, as they grow up with these technologies, adolescents may experience and perceive media and its uses differently compared to previous generations.

Despite the merging of online and offline activities, it cannot be denied that there is still a factual difference between offline and online, especially when it comes to political or civic engagement. Therefore, offline and online activities have been treated as distinct entities in this dissertation, although they may overlap at times. Signing an online petition is generally

less demanding than protesting on the street. Online activism has therefore been regarded as less effective and requiring little effort, and has been described as slacktivism or clicktivism (Karpf, 2010; Morozov, 2009), i.e. engagement to make an individual feel good rather than having a political impact (Morozov, 2009). However, Christensen (2011) has argued that several offline activities require as little effort as online activities like signing a petition or displaying a bumper sticker on a car. Furthermore, empirical studies have not identified the displacement of offline by online activities (Christensen, 2011). In fact, recent studies have indicated that online news consumption and engagement in political activities are positively related to offline political participation (Bakker & De Vreese, 2011; Möller, 2013). Although the effectiveness of online activities and the causal relationship between online and offline engagement are difficult to establish, the experienced and factual differences between offline and online activities remain, as they require different resources, including digital skills. In addition, voting at elections, which is the most popular political activity and is for individuals possibly the activity regarded as having the most direct influence, still takes place offline.

Although the results of this dissertation have shown that there is a factual offline-online difference, it is more useful to focus on causes of online and offline behaviour than on the distinction between online and offline engagement. In other words, personal interests and motivations are more important than the medium through which individuals participate. Accordingly, gaining further insight into adolescents' societal engagement will benefit more from focusing on the causes of their engagement than on the offline-online distinction.

One of the causes of differences in online behaviour is the level of digital skill possessed. Although the results have shown that the level of adolescents' digital skills only explains a small part of the differences in their online engagement, its impact is worth further investigation. Digital skills are another resource that individuals need in order to engage online, and the level of these skills is generally higher among the higher-educated, thus causing differences in online societal participation and hindering certain groups in their online engagement. The research field of measur-

ing digital skills is relatively new and evolving quickly. Van Dijk and Van Deursen (2014) have recently also suggested including content-creation and communication skills, which are sequential in terms of difficulty compared to the instrumental or operational, formal and information Internet skills that have been measured in this dissertation. The importance of social networks for social inclusion and societal participation, as the results in the different chapters have shown, certainly point to the relevance of further investigating the value of these new types of skill for social inclusion and societal engagement.

Besides this focus on the causal factors of adolescents' engagement, future research would benefit from the gaining of a better understanding of the consequences of adolescents' perception of the merging online and offline worlds. In particular, the liquid boundary between offline and online, and their constant connection to the Internet, may result in difficulties among adolescents when it comes to answering research questions about the time they spend online. They may also interpret certain questions differently compared to older age groups. This requires more research in order to design better questions and methods for questioning adolescents about their Internet use. Furthermore, it is important to reconsider and further investigate the type of online political activities that adolescents engage in. Online activities, especially when it comes to political participation, are often measured as the online equivalent of offline activities, for example, asking whether respondents have contacted politicians online, donated money online and signed online petitions (see Chapter 5; Quintelier & Theorcharis, 2013). Although these activities are most clearly related to active involvement in politics, adolescents may experience and realize their political participation differently, outside conventional structures and institutions. One of these activities is political consumerism, which is a non-conventional way to influence politics (Ward, 2009). By buying or not buying products for ethical reasons, one indirectly tries to achieve civic and political goals. This form of political participation was included in the measurement thereof in Chapter 5, and proved to be popular among adolescents. There are other relevant non-conventional forms that are worth exploring further. Many of these may attract and engage a rather small audience, and require little participation and relatively lim-

ited attention. Nevertheless, some studies have shown that adolescents engage in online activities that require investment (cf. De Grove, Van Looy, Neys & Jansz, 2012; Neys & Jansz, 2010).

Adolescents are connected

Adolescents talk both offline and online with friends and family members. Their Internet use appears to promote their offline engagement in peer groups. In line with Putnam (2000), adolescents' social networks serve as a form of social capital, providing support and kindling an interest in culture and politics. The studies in this dissertation also show that the Internet is a useful tool for addressing and reaching one's social network, as adolescents realize the affordances of online networking and communication. However, the online opportunities for societal engagement are realized less often. Simply placing cultural and political content online is not enough to involve adolescents in culture and politics. Furthermore, societal engagement is increasingly taking place in informal, short-term initiatives. Rather than being a member of a political party or sports club and entering into the long-term support of cultural institutions, individuals more often engage in short-term, clearly defined and informal activities (Posthumus, Den Ridder & De Hart, 2014). Accordingly, the type of engagement has changed (cf. Bennett & Wells, 2009; Zukin et al., 2006).

Although often regarded as such, several scholars have indeed shown that adolescents are not apathetic towards social and societal problems (cf. Harris et al., 2010; Banaji & Buckingham, 2013). Their participation often takes place outside formal structures, fitting their frame of reference. As well as political or conscious consumerism, other activities they engage in include, for instance, writing blogs, creating online communities, playing political games, and sharing civic, political and cultural content (Banaji & Buckingham, 2013; De Grove et al., 2012; Hargittai & Walejko, 2008; Smith, 2013; Ward & De Vreese, 2011). From the types of activity, it appears that the attention of adolescents is attracted by content and activities that fit their frame of reference, for instance content they create themselves that complements their personal interests (chapters 4 and 5; Hargittai & Walejko, 2008; Jansz et al., 2015). Furthermore, and in

line with the findings in this dissertation, the activities that appear especially attractive to adolescents are those that enable peer-to-peer interaction (cf. Banji & Buckingham, 2013). The results of this dissertation have shown that adolescents with culturally and politically interested peers are more likely to engage in online cultural and political activities, and being recruited online by their social network is positively related to their offline and online political participation. Online activities that allow them to share their preferences, ideas and opinions and express themselves appear to be most attractive when it comes to engaging adolescents. When they are interested and participating in civic, cultural and political activities, their enthusiasm may result in engaging their social network.

To conclude, adolescents' Internet use contributes to their social inclusion and participation in social networks and society, promoting cohesion in their everyday networks and society. Online, adolescents engage in activities that promote relationships with friends and family and societal participation. Accordingly, the results of the studies in this dissertation disprove two predictions. Firstly, adolescents' everyday Internet use does not inhibit their connectivity with others in the offline world, but instead promotes the relationships with their social ties and their social inclusion. Secondly, although there is a group of adolescents that participates in online cultural and political activities, expectations about the increased societal participation of these young people in the online world should be tempered, and one should be careful when making predictions about the possible consequences of the many opportunities that the Internet has to offer. The online opportunities are especially attractive to adolescents who are culturally and politically interested, and are more accessible to the higher-educated and those who are digitally skilled. Overall, the research in this dissertation has shown that the concerns about adolescents distancing themselves from others and society because of their online behaviours are an exaggeration; the studies have instead shown that adolescents are involved in a variety of social and societal activities online. In other words, adolescents are not only connected to the Internet, but they use it to be better connected to their social networks and society.

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Samenvatting (Summary in Dutch)

Het alledaagse internetgebruik van Nederlandse jongeren

Jongeren besteden een groot deel van hun tijd aan online activiteiten: ze communiceren met vrienden, spelen games en bekijken of uploaden zelfgemaakte content. Het internet is niet meer weg te denken uit hun dagelijks leven. Sommigen zien dit als een positieve ontwikkeling, anderen waarschuwen dat het internetgebruik leidt tot een groeiende afstand tussen mensen en een gefragmenteerde samenleving. Verschillende onderzoeken laten zien dat een kleine groep jongeren negatieve ervaringen opdoet, maar dat het merendeel van de jongeren het internet op een succesvolle en positieve manier gebruikt (cf. Livingstone & Haddon 2009). In het populaire en academische discours krijgen vooral de negatieve gevolgen van internetgebruik door jongeren aandacht, ondanks dat het een kleine groep is (Jansz, Slot, Tol & Verstraeten, 2015). Dit onderzoek biedt een empirisch tegenwicht aan deze disbalans door grootschalige, representatieve surveys onder Nederlandse jongeren te gebruiken. Het gebruik van dergelijke surveys biedt inzicht in de relatieve invloed van het alledaagse internetgebruik en andere belangrijke factoren op sociale cohesie. De volgende onderzoeksvraag staat centraal: *Hoe is het alledaagse internetgebruik van jongeren gerelateerd aan sociale cohesie?*

Sociale cohesie is in dit onderzoek gedefinieerd als de samenhang binnen groepen en de samenleving. We onderscheiden daarbij 6 dimensies: sociale netwerken en sociaal kapitaal, identiteit, gedeelde normen en waarden, sociale insluiting en uitsluiting, participatie en sociale orde en controle. Alle zes de dimensies zijn interessant in relatie tot internetgebruik, maar als het om het internetgebruik van jongeren gaat, zijn vooral de dimensies sociale netwerken en sociaal kapitaal, sociale insluiting en uitsluiting en participatie interessant om nader te onderzoeken. Doordat jongeren, ouders en de overheid verschillende voordelen en mogelijkheden van het internet zien, ontstaat er een spanning in het gebruik en de verwachte uitkomsten van het internetgebruik van jongeren. Zo zien ouders en de overheid het internet als informatiebron en mogelijkheid voor jongeren om in de samenleving te participeren (boyd, 2014), terwijl jonge-

ren het internet vooral gebruiken om hun sociale netwerken te onderhouden en aansluiting te vinden bij vriendengroepen (Reich, Subrahmanyam & Espinoza, 2012). Het onderzoek richt zich daarom op de volgende drie dimensies van sociale cohesie: sociale netwerken en sociaal kapitaal, sociale insluiting en uitsluiting en participatie.

Een dissertatie biedt ruimte om de verschillende dimensies van sociale cohesie te onderzoeken en is daarom een goede manier om het internetgebruik van jongeren op sociale cohesie te onderzoeken. Het onderzoek is gedaan onder Nederlandse jongeren en biedt hiermee een andere context dan veel van het onderzoek op dit gebied, dat veelal in de Verenigde Staten plaatsvindt. Nederland is één van de koplopers wereldwijd als het om internetaansluitingen gaat, zo had 100% van de Nederlandse huishoudens met kinderen in 2013 een internetaansluiting (CBS, 2013). In de Verenigde Staten zijn minder huishoudens aangesloten op het internet (78% van de 15-35-jarige had een internetaansluiting in 2013; United States Census Bureau, 2014).

Voor het onderzoek zijn de volgende deelvragen geformuleerd:

→ Hoe is het alledaagse internetgebruik van jongeren gerelateerd aan hun sociale netwerken, sociale insluiting en participatie in de samenleving?

→ In welke mate zijn verschillen in internetgebruik en digitale vaardigheden te verklaren door de online participatie en sociale relaties van jongeren?

→ Welke factoren, anders dan internetgebruik, zijn relevant bij het verklaren van verschillen in sociale cohesie onder jongeren?

De onderzoeksvragen zijn beantwoord in vier empirische studies: in twee studies lag de nadruk op de relatie tussen jongeren en hun naasten, dat wil zeggen hun ouders en vrienden. In de derde en vierde studie is onderzocht in welke mate jongeren gebruik maken van de mogelijkheden om

online te participeren in de samenleving door te kijken naar hun online culturele en politieke participatie.

Het internetgebruik van jongeren bevordert sociale cohesie

De resultaten van de vier studies laten zien dat jongeren die meer tijd online zijn en meer tijd besteden aan online sociale activiteiten sterker verbonden zijn met sociale netwerken en meer participeren in de samenleving. Zo zijn jongeren die langer online zijn ook cultureel actiever op het internet en vergroot het participeren in online sociale activiteiten de insluiting in vriendengroepen offline en de online politieke participatie. Online sociale activiteiten dragen vooral bij aan de offline sociale insluiting van jongeren van niet-Westerse origine, een groep die minder participeert in vriendengroepen en in georganiseerde vormen van vrijetijdsbesteding, zoals hobbyclubs en sporten.

Het sociale netwerk is niet alleen een dimensie van sociale cohesie, maar ook een middel om deze te versterken. Zo mobiliseert het sociale netwerk de jongeren om te participeren in online en offline politieke activiteiten. Wanneer hun vrienden meer cultureel geïnteresseerd zijn, dan zijn jongeren zelf ook eerder geneigd om online te participeren in populaire en traditionele vormen van cultuur. De gezamenlijke bevindingen wijzen uit dat de alledaagse online activiteiten van jongeren de sociale cohesie bevordert.

…maar er zijn wel belangrijke verschillen in internetgebruik en digitale vaardigheden

Zo hebben jongeren die meer tijd online besteden een slechtere relatie met hun ouders. Het maakt hierbij wel uit welke activiteiten ze ondernemen online. Als ze tijd aan school besteden, dan compenseert dit het negatieve effect van de duur van het internetgebruik. Daarbij kan het ook zijn dat jongeren die een slechte band met hun ouders hebben, meer tijd online besteden. Het besteden van meer tijd aan gamen hangt samen met een lagere participatie in vriendengroepen.

Jongeren worden vaak als digitaal vaardig beschouwd, maar er zijn duidelijk verschillen in de mate waarin zij om kunnen gaan met bepaalde media, online content kunnen zoeken, de juiste content kunnen selecteren en de

waarde ervan kunnen evalueren. Zo zijn meisjes en laagopgeleiden iets minder digitaal vaardig. De resultaten laten zien dat jongeren die minder digitale vaardigheden hebben ook minder participeren in online sociale, culturele en politieke activiteiten. Doordat laagopgeleide jongeren over minder digitale vaardigheden beschikken en minder cultureel en politiek geïnteresseerd zijn, dragen de verschillen in digitale vaardigheden bij aan een het vergroten van ongelijkheid in de samenleving. Deze bevinding sluit aan bij het stratificatie perspectief, dat stelt dat mensen die offline bevoorrecht zijn, zich ook online beter weten te manifesteren en te participeren.

…en tussen bepaalde groepen

Naast internetgebruik en vaardigheden zijn er andere factoren die samenhangen met verschillen in sociale cohesie. Zo zijn meisjes meer actief in vriendengroepen en participeren ze meer in online culturele activiteiten en iets meer in online politieke activiteiten. Meisjes en oudere jongeren brengen minder tijd met hun ouders door, maar dit heeft geen invloed op de kwaliteit van de relatie. De resultaten laten ook zien dat het contact met vrienden niet in de plaats komt van de gesprekken tussen jongeren en hun ouders; jongeren die meer persoonlijke dingen delen met vrienden doen dit juist ook met hun ouders. De persoonlijkheid van jongeren speelt hier mogelijk een rol, zo ook bij de politieke participatie. De offline politieke participatie ligt hoger onder jongeren die extravert zijn en open staan voor nieuwe ideeën en ervaringen, terwijl de meer introverte jongeren voorkeur lijken te hebben voor online politieke participatie.

Daarnaast zijn er verschillen in sociale cohesie naar sociaaleconomische achtergrond. Zo zijn jongeren uit gezinnen met een laag inkomen en met laagopgeleide ouders en jongeren van niet-Westerse origine in hun vrije tijd minder actief in hobbyclubs en sport. De offline en online cultuurparticipatie ligt hoger onder jongeren met hoogopgeleide ouders. Jongeren die zelf hoog opgeleid zijn, tonen meer interesse in politiek en participeren dan ook meer online en offline in politieke activiteiten. De assumptie dat de online activiteiten aantrekkelijker zijn en minder tijd en geld kosten, leidt er niet toe dat jongeren online meer cultureel en politiek actief zijn. De resultaten laten zien dat jongeren die niet cultureel of politiek geïnteresseerd zijn, niet offline, maar ook niet online participeren in deze activiteiten.

Het internetgebruik en de digitale vaardigheden hebben relatief weinig invloed op sociale cohesie.

De verschillen in online en offline participatie tussen jongeren wordt in zekere mate beïnvloed door de tijd die ze online besteden, hun online activiteiten en digitale vaardigheden, maar uit de studies blijkt dat deze invloed relatief klein is. De verschillen in sociale cohesie ontstaan vooral door een combinatie van de achtergrondkenmerken van jongeren (geslacht, leeftijd, etniciteit), de mogelijkheden of bronnen die zij tot hun beschikking hebben (sociale netwerk, opleidingsniveau) en voornamelijk hun interesses. Jongeren gebruiken het internet vooral voor activiteiten die aansluiten bij hun persoonlijke interesses en voorkeuren. De online toegankelijkheid van culturele en politieke content leidt er niet toe dat jongeren hier ook meer in participeren. Het zijn vooral de cultureel of politiek geïnteresseerde jongeren die participeren in online culturele en politieke activiteiten.

Offline en online: gescheiden werelden?

Online en offline activiteiten zijn nog steeds te onderscheiden, maar dit onderscheid lijkt voor jongeren weinig relevant te zijn. Wanneer het bijvoorbeeld gaat om politieke activiteiten hebben offline activiteiten zoals het uitbrengen van een stem wellicht meer invloed op de politiek, maar het is de vraag of jongeren dit zelf zo ervaren. Wellicht beschouwen zij hun online activiteiten als van even grote invloed. De manier waarop jongeren de gevolgen van hun eigen internetgebruik zien en ervaren verschilt daarmee mogelijk van andere generaties. Door meer onderzoek hier naar te doen wordt meer inzicht verkregen in deze verschillende percepties.

Het internet is niet de oplossing, maar ook niet de enige veroorzaker van problemen

De opkomst van het internet leidde tot veel negatieve, maar ook positieve verwachtingen. Empirische studies hebben in de afgelopen 2 decennia bijgedragen aan het temperen van verwachtingen over de gevolgen van het internet. Toch komen in het publieke en (semi-)wetenschappelijke debat nog steeds sterk negatieve en positieve verwachtingen naar voren. Dit onderzoek levert hier een empirische bijdrage aan, door aan te tonen dat dergelijke verwachtingen gematigd dienen te worden. Het is vooral belangrijk om in te zien dat het niet het internet zelf, maar de manier waarop en met welk doel jongeren het internet gebruiken positieve of negatieve gevolgen heeft.

Jong, online en verbonden

De resultaten laten zien dat jongeren verbonden zijn met hun sociale netwerken en dat ze participeren in de samenleving; ze zijn verbonden met hun vrienden en ouders en participeren in offline en online culturele en politieke activiteiten, met behulp van het internet. Het internet is een middel om in contact te staan met vrienden en familie, ook als zij zich fysiek op andere locaties begeven. Hedendaagse families of gezinnen kunnen daarom beter als sociaal netwerk beschouwd worden dan als zelfstandige systemen of semi-gesloten entiteiten. Jongeren en hun ouders onderhouden met behulp van het internet contact met elkaar en met anderen; ze beheren hun agenda's, delen dingen met elkaar om (deels) op de hoogte te blijven van elkaars activiteiten en interesses.

Verwachtingen rondom de positieve bijdrage van het internetgebruik aan participatie in de samenleving dienen wel getemperd te worden, doordat de online culturele en politieke activiteiten vooral aantrekkelijk zijn voor cultureel en politiek geïnteresseerde jongeren en de activiteiten beter toegankelijk zijn voor hoger opgeleide en digitaal vaardige jongeren. De waarschuwing dat jongeren op afstand en met hun ogen gericht op schermen leven wordt ontkracht in dit onderzoek. Het alledaagse internetgebruik van jongeren draagt bij aan hun sociale inclusie in sociale groepen en netwerken en participatie in de samenleving en bevordert zo de sociale cohesie.

About the author

Marjon Schols (1985) studied Sociology (BSc and Msc, 2007) at Tilburg University and Political Science (MSc, 2009) at Radboud University Nijmegen. During her studies she worked as a student assistant and as coordinator of the European Data Center for Work and Welfare (EDACwowe) at Tilburg University.

From 2009-2011 she has worked as a researcher at the Netherlands Institute for Social Research | Sociaal en Cultureel Planbureau (SCP). At the research group Time, Media and Culture, she authored and co-authored several reports on the balance of work and care, the time use in families, the time use in European countries, leisure activities and the online cultural participation of Dutch teenagers.

In July 2011, she started her PhD research at the Media & Communication department at the Erasmus University in Rotterdam. Her research is part of the Dutch Research Delta, a network funded by TNO and KPN. She presented her work at several national and international conferences and has been the representative for Media & Communication in the PhD Council of the Erasmus Graduate School of Social Sciences and the Humanities. During her time as a PhD candidate, she spend 6 months working on her research at TNO and taught several courses at the Media & Communication department. As an independent researcher she participated in a TNO project about the comparison of privacy policies in European Countries and has studied the media use of young children and how this is guided by their parents.

As of March 2014, she is an advisor on research and strategic issues at the Research and Studies Department of the Ministry of the Interior and Kingdom Relations.

Young, Online And Connected

Adolescents spend a significant part of their day online on different activities. Many of them use the Internet to connect with social networks and for entertainment. The negative consequences of adolescents' Internet use seem to dominate both popular and, to a lesser extent, academic discourse. Using large-scale, nationally representative data, this dissertation provides insight into the balance between the positive and negative outcomes by investigating how adolescents' everyday Internet use is related to social cohesion.

Adolescents use the Internet as a tool to maintain social relationships in the current networked society. Concerns about adolescents distancing themselves from others and society because of their online behaviours appear an exaggeration; the studies have instead shown that adolescents are involved in a variety of social and societal activities online. In other words, adolescents are not only connected to the Internet, but they use it to be better connected to their social networks and society.

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