

# Youth and New Media in the New Millennium

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## Abstract

There is general agreement among media and communication scholars that a monumental shift is occurring in the media and communication habits of young people. In the present paper, this shift is discussed within the framework of a long-term study of six samples of Icelandic youths, covering a period of 35 years. A persistent decline in use of the “old” media, such as books, newspapers and radio is demonstrated, while the social role of television is shown to be undergoing a transformation comparable to what happened to book reading centuries earlier. All this is discussed in the light of the onslaught of new technologies and new media of communication.

**Key Words:** gender, age, time, old media, new media, ambivalence

## Introduction

The ongoing research project “Children and Television in Iceland”, which presently extends between 1968 and 2003, provides a unique perspective on changes and developments in the uses of traditional media of communication among consecutive samples of youths in an affluent and fast-moving Northern European population. At the same time, the project figures as a running measure of the impact of new media as they have been introduced and gradually incorporated into the Icelandic culture during this period of time. In this paper, some key findings of the project – relating to a persistent decline in book reading, fundamental changes in the uses of television, the rapid penetration of the Internet and the explosive introduction of mobile phones – will be accounted for.

Among contemporary students of youth and media, the metaphors may differ somewhat from one study to the next, and the vocabulary is not always identical, but there appears to be full agreement on the main conclusion: A monumental shift is occurring in the media and communication habits of young people. According to Sonia Livingstone: “As we enter the twenty-first century, the home is being transformed into the site of a multimedia culture, integrating audiovisual, information and telecommunications services” (Livingstone 2002: 1). This transformation is exemplified, on the one hand, in the near-ubiquity of the Internet in the homes of ordinary people (Livingstone and Bovill 2001) and, on the other, in a prevalent disregard for book reading (*The Scotsman* 2004; *National Reading Campaign* 2004; Hegna 2005). At the same time, we would do well to “resist...extreme claims that the era of the book and print literacy are

over. Although there are discontinuities..., there are also important continuities” (Kellner 2002:92). It is also important to keep in mind that access to, and participation in, the new multimedia culture is far from evenly distributed. As David Buckingham points out: “...the most striking development here (not only in the UK but in many other industrialized countries) has been the increasing polarization between rich and poor” (Buckingham 2000:77). No less important is the question of gender: “...researchers have consistently found that girls have less access to computers, are less interested in them and spend less time using them than boys...” (Buckingham 2002:79). This last observation inevitably raises the proverbial question of the chicken and the egg.

Early studies of television on both sides of the Atlantic were directly prompted by concerns about the social effects of the medium, especially on children. In their classic study, Hilde T. Himmelweit and her associates acknowledge their starting point: ‘Every new medium of communication has in its time aroused anxiety...Now it is the turn of television’ (Himmelweit, Oppenheim and Vince 1958:xiii). Over the years, television became a well-established fixture of our existence (Broddason 1996); yet Himmelweit’s observation was still echoed – and amplified – three decades later: “For every new mass medium appearing on the scene, a “moral panic” has occurred” (Rosengren and Windahl 1989: 249). This viewpoint has persisted to this day, even though the authors of more recent works try to strike a balance between accounts of optimism and pessimism (Buckingham 2000; Castells 2001; Livingstone 2002).

The mobile phone is given particular attention in some recent works. In an ambitious study of Norwegian youths, Hegna (2005) notes a significant reduction in feelings of loneliness between 1992 and 2002. Hegna goes on to suggest that the mobile phone is the simple explanation of these changes (Hegna 2005:43). According to Barry Wellman, this is a time for individuals and their networks, not for groups. The mobile phone affords liberation from both place and group, and rather than being embedded in one social network, person-to-person interactors continuously switch between networks (Wellman 2001:238-248). “These trends are tantamount to the triumph of the individual, although the costs for society are still unclear” (Castells 2001:133). “If ‘community’ is defined socially and not spatially, it is clear that contemporary communities are rarely limited to neighbourhoods...” (Wellman 2001:233). The shift away from place-based inter-household ties to individualized person-to-person interactions and specialized role-to-role interactions (Wellman 2001:231) has given rise to the concept of *networked individualism*. I shall return to this concept towards the end of this paper. First, however, a brief introduction to the long-term research project that is the source of my data.

## **The Research Project “Children and Television in Iceland”**

### *A Note on Method*

The research project Children and Television in Iceland consists presently of six surveys that have been conducted over a period of 35 years, starting in 1968 and continuing at regular intervals until the last one so far, in 2003. The population basis for these surveys has been defined in the same manner on each occasion, i.e. the last six classes (in 1968 only the last five classes) in elementary school in three Icelandic communities, *Reykjavík*, *Akureyri* and *Vestmannaeyjar*. The research settings have been practically identical over the years. Pupils were randomly sampled on an individual basis and participation was entirely voluntary. The surveys were in the form of written questionnaires

and were conducted during school hours at the same time of the year, two to three months into spring term.<sup>1</sup> Sample sizes and response figures are shown in Table 1.

**Table 1.** *Children and Television in Iceland: Sample size and response rate 1968-2003*

	1968	1979	1985	1991	1997	2003
Sample size	733	864	896	961	984	1 008
Respondents	601	795	824	817	857	786
Response rate	82%	92%	92%	85%	87%	78%

Although the response rates are highly satisfactory on all six occasions, the figure for the 2003 survey is relatively low due to an influenza epidemic that coincided with the field work.

### *The Questionnaire*

Most questions have remained very much the same over the years. Obviously, though, additions have been necessary, in order to accommodate the ever-growing ranks of what is collectively known as the “new media”. The 2003 questionnaire was 16 A-4 pages long and consisted of 83 questions altogether, many of which contained a number of sub-questions. Aided by pilot studies and accumulated experience, we have sought to establish a level of sophistication in the wording of questions that would be acceptable to ten-year-old children. The length of the questionnaire has also been determined with ten-year-olds in mind. The schools turned the children over to us for two consecutive sessions (about 80-90 minutes in total). Apart from the questionnaire, the participants were also requested to fill out a television diary for the previous week (aided recall). The supervision of all sessions, including distribution and collection of questionnaires, was in the hands of the team of researchers and their trained assistants, and care was taken to dissociate the operation from the daily school routine. This was particularly important, considering that the children were “borrowed” from the school, during school hours and remained on school premises.

Apart from standard background questions, the questionnaires have dealt with the uses of all the traditional media of mass communication, including book reading; leisure activities other than media use; travel; some knowledge issues; orientation to the future; and a narrow range of attitudes. Additions to the most recent surveys include questions regarding the respondents’ possession of various items that reflect changes in the media and communications culture<sup>2</sup>. Since the 1991 survey, this particular cluster of questions has contained the lists reproduced in Table 2 (figures indicate the rounded total percentages of affirmative responses). A few of these will be discussed below. By and large, my figures and tables lend support to the general consensus among researchers as to where the media culture is heading. What puts my material somewhat apart is the extensive time perspective that I can invoke in order to demonstrate some of the suspected trends.

**Table 2.** *Children and Television in Iceland: “Do you own, or is there in your room, any of the following?” 1991-2003: 10- to 15-year-old youths in Reykjavík, Akureyri and Vestmannaeyjar (per cent)*

	1991	1997	2003
Record player	36	16	15
CD player	30	76	89
Games computer	32	30	52
Television	28	46	66
<i>Added in 1997</i>			
Personal computer		24	36
Mobile phone		3	79
VCR player		13	33
<i>Added in 2003:</i>			
DVD-player			26
Internet connection			30
Laptop computer			7
Palm computer			4
MP3- player			9
Minidisk player			*

\* This item was dropped from the list in 2003.

## **A Shift in the Media Culture: The Evidence**

As discussed above, researchers agree that the lives of ordinary people have in recent years undergone a significant transformation in terms of their media and communication habits. This has affected all age groups in disparate societies, and people in all walks of life. It seems evident, however, that it is the young ones who are most deeply involved. This is probably true across geographical, cultural, social and economic distances.

### *An “Old” Medium in New Circumstances*

For those who grew up without television, it takes some effort to label this mass medium as “old”. Hence the quotation marks. I find it fitting to start this exemplification of changes by demonstrating how television, which arguably falls well outside the definition of “new media” (Livingstone, Bovill and Gaskell, 1999: 10), has undergone a transformation in terms of its uses in the household. Much scorn has been heaped upon television since its inception seventy years ago. At the same time, it is not disputed that, on its arrival, television became the focal point of the home where members of the family spent their time together. Metaphors abounded; one of my favourites is *The Electronic Hearth* (the title of an insightful work by Cecelia Tichi, 1991). This view of television rests on the premise that we are discussing the television set in the *singular*, which was not unreasonable during the first decades of the new medium. During the 1980s, it became apparent that we no longer could take single-TV homes for granted as a general rule. Consequently, when preparing for the 1991 survey, I added a question about the

number of television receivers in the respondent's home. As Table 3 shows, the number of homes with three or more television receivers more than tripled between 1991 and 2003.

**Table 3.** *Children and Television in Iceland: Number of TVs in Respondents' Homes 1991-2003: 10- to 15-year-old youths in Reykjavík, Akureyri and Vestmannaeyjar (per cent)*

	1991	1997	2003
No TV	–	–	–
One TV	47	28	11
Two TVs	36	40	33
Three TVs	13	23	31
Four or more TVs	4	9	25
	100	100	100
Mean no. of TVs	1,73	2,15	2,85
N:	811	834	773

Quite clearly, at the turn of the 21<sup>st</sup> century, the days of the “electronic hearth” were numbered; it was rapidly being replaced by several screens, scattered throughout the house, enabling household members to watch TV in solitude if they so wished. This development fits well with the general conclusion that “...television still dominates the leisure hours and interests of children and young people...” (Livingstone, Bovill and Gaskell 1999:11). We are seeing here one aspect of the progressive advance of the “media-rich bedroom” (Livingstone 2002). The implications for social interaction within the family, parental supervision and reciprocity are quite profound. Here, as always, the differences between boys and girls must be kept in mind (Table 4).

**Table 4.** *Children and Television in Iceland: Per cent of Respondents with own TV 1991-2003: 10- to 15-year-old youths in Reykjavík, Akureyri and Vestmannaeyjar (per cent)*

	Boys	Girls	Total
1991	38	18	29
1997	53	39	46
2003	73	58	66

The very strong and persistent gender bias that Table 4 reveals calls for a comment; I shall return to that issue below. Tables 5 and 6 confirm that the opportunities offered by the proliferation of TVs are appreciated.

**Table 5.** *Children and Television in Iceland: Per cent of Respondents who watch TV “usually”/“very often” alone\* 1968-2003: 10- to 15-year-old Youths in Reykjavík, Akureyri and Vestmannaeyjar (per cent)*

	1968	1979	1985	1991	1997	2003
Watch TV “usually”/“very often” alone	2	3	12	15	28	40

\*In 1968 and 1979, the wording of the response was: “I usually watch TV alone”. From 1985 onwards, a five-graded multiple choice response was provided to the question “How often do you watch TV?”, including “Alone...very often”.

**Table 6.** *Children and Television in Iceland: Per cent of Respondents who Watch TV “very often” with Parents 1985-2003: 10- to 15-year-olds in Reykjavík, Akureyri and Vestmannaeyjar (per cent)*

	Boys	Girls	Total
1985	58	47	52
1991	45	31	39
1997	31	29	30
2003	23	22	23

In 2003, the overall percentage of those who claim to watch TV “very often” with their parents is less than half of what it was in 1985. Gender differences, with respect to this question, disappear during this time. This is probably best explained with reference to the prevailing gender differences demonstrated in Table 4: having more access to TV in their private space, the boys are provided with both motive and opportunity to desert the family’s living room in greater numbers than the girls.

**Table 7.** *Children and Television in Iceland: Hours and Minutes Spent Watching TV\* 1985-2003: 10- to 15-year-olds in Reykjavík, Akureyri and Vestmannaeyjar*

	Boys	Girls	Total
1985	11:21	9:11	10:12
1991	13:00	11:17	12:12
1997	13:29	11:28	12:30
2003	12:34	13:49	13:09

\* Measurement methods are not identical over the years.

Considering the proliferation of TVs in the households and their growing presence in the private spaces of the young people, it would seem reasonable to expect a strong increase in time spent watching TV. Although my measures of television viewing intensity are not identical over the years, I feel justified in comparing the figures for the past four surveys. Table 7 confirms the hypothesis that more and more time is being spent watching TV, but only to a moderate degree: we see an overall increase of some 30 per cent over a period of 18 years. The table also shows time-honoured gender differences

in the expected direction, but only in three cases; in the latest survey, we do indeed find a distinct gender difference, but it is in the *opposite direction*: whereas in 1985, 1991 and 1997 (and actually in 1968 and 1979 as well, even if direct quantitative comparisons with later surveys are not permissible), boys watched television more than girls, in 2003 the girls reported an average figure that is one hour and fifteen minutes higher than that for the boys. This difference holds for each of the six age groups except the youngest: the 10-year-old girls watched television 25 minutes less on average during the week in question than did the 10-year-old boys. Further, we register an *actual decline* in television viewing among the boys in 2003, so steep in fact that they have even fallen well below the 1991 figure. And this is happening while an ever-increasing number of respondents (especially boys) report private ownership of television. When we start looking for an explanation of this important turnaround, the idea of displacement suggests itself and the obvious candidates to effect the displacement are the “new media”. I shall return to this question, but first I shall consider the question of displacement with regard to another media issue.

### *A Truly Old Medium in New Circumstances*

Audiences for old-fashioned printed matter (books, magazines, newspapers) obviously precede audiences for broadcasting and digital media. In the past, when the question of displacement has arisen, it very frequently has been focused on the question of reading *versus* watching TV, (Knulst and Kraaykamp 1997; Koolstra and van der Voort 1996; Neuman 1988). More recently, attention has increasingly turned to old-fashioned reading *versus* uses of the new media (Livingstone, Bovill and Gaskell 1999).

We have included questions regarding leisure reading in our surveys from the very outset of the research project Children and Television in Iceland. Consequently, we are able to speak with some confidence about changes in reading habits. The following question has been put to our respondents in each survey:

If you think carefully, how many books, apart from school books, do you think you have read during the past 30 days? (1968 and 1979).

Have you read any books during the past 30 days? (Here we do not mean books that you may have read in relation to your school work) (1985, 1991, 1997, 2003).

**Table 8.** *Children and Television in Iceland: Number of books read during “the past 30 days” in 1968-2003: 10- to 15-year-olds in Reykjavík, Akureyri and Vestmannaeyjar (per cent)*

	1968	1979	1985	1991	1997	2003
Number of books:						
None	11	11	15	18	27	33
One to nine	79	69	72	76	65	64
Ten or more	10	20	13	6	8	3
	100	100	100	100	100	100
Mean no. of books	3.9	6.7	4.2	2.8	2.7	1.8

The categories in Table 8 are chosen so as to highlight the extremes: on the one hand, we have those who have not read a single book during the period in question, and on the other, the very heavy readers for whom hardly a day passes without some leisure reading. The overall trend between 1968 and 2003 is unmistakable, especially with regard to the “non-readers” whose ranks are constantly swelling. The diminishing numbers of the very heavy readers are also apparent, with the most dramatic downturn occurring between 1997 and 2003. Admittedly, the figure for 1979 stands out as something of an anomaly in this context; this is in all likelihood best explained by the new *comic book* genre, which had been recently introduced on the Icelandic market in 1979, and enjoyed considerable popularity at the time of the second survey. These publications take much less time and effort than ordinary books, and they can even be enjoyed without being “read” in the proper sense of the word (for a more comprehensive discussion of this problem, see Broddason 1996:120-123).

It is well established that girls read more than boys, and also, that book reading declines during the teens. Tables 9 and 10 confirm this.

**Table 9.** *Children and Television in Iceland: Number of books read during “the past 30 days” 2003. 10- to 15-year-olds in Reykjavík, Akureyri and Vestmannaeyjar According to gender (per cent)*

	Boys	Girls	Total
Number of books:			
None	42	24	33
One to nine	56	72	64
Ten or more	3	4	3
	100	100	100

**Table 10.** *Children and Television in Iceland: Number of books read during “the past 30 days” 2003: 10- to 15-year-olds in Reykjavík, Akureyri and Vestmannaeyjar According to age (per cent)*

	10-11	12-13	14-15	All
Number of books:				
None	12	32	51	33
One to nine	80	66	48	64
Ten or more	8	2	1	3
	100	100	100	100

During the past several decades, television has been the favourite scapegoat for those adherents of the displacement hypothesis (see, for instance, Neuman 1988) who bemoan the decline of reading. During the 1980s, Corteen and Williams made this cautious statement on the basis of meticulous empirical work: ‘At least for some children, time spent with television displaces reading practice’ (Corteen and Williams 1986:71).

Before I continue, I wish to put in a reminder that there is more to printed matter than just books. As Table 11 demonstrates, the decline in reading is in no way confined to books. The level of newspaper saturation among youths in the 1960s and 1970s is impressive, particularly if we keep in mind that regular delivery of newspapers to Akureyri

and Vestmannaeyjar was much less reliable in those days than it is in the 21<sup>st</sup> century. The steady decline in the reading of newspapers since the 1979 survey must be regarded as one indication of a radical shift in the media culture. Interestingly, the strong gender differences that characterize the figures for book reading are either absent or marginally in the opposite direction with regard to newspaper reading. This of course reflects the fundamentally different (gender-contingent) purposes served by newspapers, on the one hand, and books, on the other.

**Table 11.** *Children and Television in Iceland: Percentage who read a newspaper daily or almost daily 1968-2003: 10- to 15-year-olds in Reykjavik, Akureyri and Vestmannaeyjar. By Gender (per cent)*

	Boys	Girls	Total
1968	90	89	89
1979	90	89	90
1985	76	68	72
1991	70	65	68
1997	64	59	61
2003	40	40	40

The figures I have presented in this section provide strong evidence that reading in the traditional sense is in an increasingly sharp decline among Icelandic youth. We might even forecast that well-filled book shelves – the pride of any Icelandic home up until now – will soon be a thing of the past, and that newspapers will wither away in the next few decades.<sup>3</sup> Considering the importance attributed to reading and literacy as key elements in modern democratic society (Broddason 1996:112-120), it is important to find out what is displacing reading.

### *The Really New Media*

The information gathered during our surveys makes it possible to explore several kinds of relationships in order to chart changes in the media culture of young people. Thus, we find that there is a strong negative relationship between book reading, on the one hand, and ownership of television, a personal computer and an Internet connection, on the other. This finding holds most of the time for boys and girls separately, but only within certain age groups. Table 12 serves as an example. The highly significant differences between owners and non-owners of an Internet connection are sustained within both gender categories, but only in one out of three age categories (12- to 13-year-olds).

**Table 12.** *Children and Television in Iceland. Book reading according to responses to the question “Do you own, or is there in your room....an Internet connection?” 2003: 10- to 15-year-olds in Reykjavík, Akureyri and Vestmannaeyjar (per cent)*

	Don't own Internet c.	Own Internet c.	All
Number of books read during past 30 days:			
None	27	47	33
One to nine	70	51	64
Ten or more	3	3	3
	100	100	100

p<.000

Not so long ago, mobile telephones were an unknown feature of the daily lives of ordinary adults, let alone children and teenagers. The rapidity with which this situation changed is probably without parallel (Table 13). It is a challenging task to try to fathom the implications of this development for social relations and our conceptions of individuals, groups and networks (Castells 2001; Wellman 2001).

**Table 13.** *Children and Television in Iceland. “Do you own....a mobile phone?” 1997 and 2003. 10- to 15-year-olds in Reykjavík, Akureyri and Vestmannaeyjar Percentages (per cent)*

	Boys	Girls	Total
1997	5	1	3
2003	76	82	79

The ownership of mobile phones is becoming so pervasive that it makes little sense to attempt any analysis in terms of differences between owners and non-owners. The avalanche fell, so to speak, in between surveys. In order to catch it in progress, we would have needed a survey in the year 2000 or thereabout. It is striking that, among all the new communications phenomena, it is only in the acquisition of this particular gadget that the girls have some edge on the boys. That the mobile phone is being used by young people is common knowledge; no survey results are needed to prove that. But what, if anything, is the mobile phone displacing? This question will not be answered conclusively here, although the book reading figures discussed above suggest one obvious victim and, at least as far as the boys are concerned, television is on the defensive for the first time in history. However, the explosive introduction of this new medium has ramifications far beyond displacement effects, because it has facilitated the creation of previously unheard of communication situations and relations. Tables 14 to 16 throw some light on how the mobile phone is being used.

**Table 14.** *Children and Television in Iceland. “How often do you speak to....on a mobile phone?” Percent who say “Once a day” or “More than once a day” Survey of 2003. 10- to 15-year-olds in Reykjavík, Akureyri and Vestmannaeyjar (per cent)*

	Boys	Girls	All	Significance:
Parents	30	37	33	p<.000
Siblings	9	11	10	p<.007
Other relatives	9	5	7	p<.018
Friends	39	52	46	p<.001
Others	13	15	14	ns

**Table 15.** *Children and Television in Iceland. “How often do you send an SMS to....?” Percent who say “Once a day” or “More than once a day” Survey of 2003. 10- to 15-year-olds in Reykjavík, Akureyri and Vestmannaeyjar (per cent)*

	Boys	Girls	All	Significance:
Parents	7	11	9	p<.002
Siblings	5	9	7	p<.001
Other relatives	7	5	6	p<.006
Friends	27	42	34	p<.000
Others	10	14	12	ns

**Table 16.** *Children and Television in Iceland. “How often do you receive an SMS from....?” Percent who say “Once a day” or “More than once a day” Survey of 2003. 10- to 15-year-olds in Reykjavík, Akureyri and Vestmannaeyjar (per cent)*

	Boys	Girls	All	Significance:
Parents	8	11	10	p<.016
Siblings	6	7	6	ns
Other relatives	5	3	4	ns
Friends	28	43	36	p<.000
Others	10	16	13	ns

The mobile telephone has become an essential ingredient in the daily lives of boys and girls, but distinctly more so for girls. This new gadget is clearly very important for contacts with relatives, and has drastically changed the context of these contacts in comparison with the situation only a few years earlier. This is even more true of contacts with friends: Especially the girls seem to rely on the mobile to keep their social networks running, talking on the phone and sending and receiving SMSes. The extent to which the mobile phone instigates or accelerates changes in their peer relationships cannot be deduced from my figures.

Sonia Livingstone and Magdalena Bober (2004) found that a tenth of 9- to 11-year-old UK children and a fifth of 12- to 15-year-olds had access to the Internet in their own bedrooms. Similar figures in my 2003 survey are 14 per cent for the 10- to 11-year-olds,

27 per cent for the 12- to 13-year-olds, and 46 per cent for the 14- to 15-year-olds. Boys are more likely than girls to have their own Internet connection, but the gender difference is much more marked among the Icelandic sample (40 per cent versus 18 per cent, respectively). However, Table 17 shows that both boys and girls use the Internet.

**Table 17.** *Children and Television in Iceland. Uses of the Internet. Percent who say “Once a day” or “More than once a day” Survey of 2003. 10- to 15-year-olds in Reykjavík, Akureyri and Vestmannaeyjar (per cent)*

	Boys	Girls	Total
Chat on the Internet	22	13	18
Send and receive e-mail	27	27	27

Much as expected, the boys are more frequent Internet chatters than the girls. Intriguingly, however, the girls are actually level with the boys when it comes to use of the e-mail function. Although this may come as a surprise, it fits very well in with the findings regarding the use of mobile phones. E-mail, after all, is in principle little different from SMS. At the same time, of course, this means that the girls are becoming familiar with the computer and may very well point towards greater equality in this area in the near future.

### Some Conclusions

The proliferation of television sets in the home has helped in the creation of a new environment; we may speculate about a new individualism, possibly greater isolation, less communality in the family etc.: “...enforced conviviality being a thing of the past for all but the poor” (Livingstone 2002:136). However, a corresponding dramatic increase in television viewing has not materialized; there is even at last some suggestion of television being displaced by other activities, related to the “new media”. Another aspect worthy of note is the change in the nature of television viewing. Although recent research has shown that “watching television remains primarily a social activity...” (Livingstone 2002:144), my results indicate that the numbers of lone viewers are rapidly increasing: in 2003 no less than 40 per cent of my respondents claim to watch “very often” alone – up from 28 per cent in 1997. The media rich child may be alone, but she is not necessarily lonesome. And this same child may very well watch television in a different frame of mind from her elders. Television is perhaps becoming more of a background medium than was envisaged previously.

Icelanders consider themselves to be bookish; when comparing themselves to the rest of the world, they boast of a comparatively high literacy rate, very high book publication figures, and a high level of interest in literature among the general public (Broddason 1996). The decline in book reading, which my figures demonstrate, is consequently a matter of concern. The 2003 survey shows the average number of books read during the “past 30 days” falling below two for the first time. Reading has been considered inherently good and television, the main competitor during the latter half of the 20th century, is still regarded with scepticism. How far this popular view is justified is of course debatable, but strong support for it from the scientific community is readily available: ‘A great deal of our thinking, reading, and learning involves successive ef-

forts to attend, while the viewing of television and films is less likely to require effort' (Kubey and Csikszentmihalyi 1990:140). Research results also show that the longer people sit in front of the set, the less satisfaction they say they derive from it (Kubey and Csikszentmihalyi 2002:4). Television is no longer the sole culprit; we find – as usual – that boys read less than girls, and they turn out to possess the new media to a considerably greater extent. The displacement effects of the new media on reading and even to some extent on television viewing seem self-evident, but further analysis is needed to lay bare such effects.

Attitudes towards computers and the Internet are more ambivalent. The Internet explosion together with the mobile phone revolution has prompted the discussion of concepts like “networked individualism” and “communities of choice” (Castells 2001; Wellman 2001). The development towards both convergence and interactivity is gradually making habitual ways of looking at things and asking questions more or less obsolete. The Internet will provide an answer, almost irrespective of the question; and not just one answer, but more likely answers by the hundreds or thousands. Many of them will turn out to be irrelevant or of low quality. When the Internet goes wireless, as it is rapidly doing, the question of which room the Internet connection is located in becomes totally meaningless. The freedom and opportunities offered by the Internet are beyond measure, and the same may be said of the worries that the Internet is bound to cause any responsible parent or guardian of minors. A teenager or even a pre-teenage child may have joined something that she thinks is her “community of choice”, peopled by her peers, but in actual fact she may have become involved in an organized network of unscrupulous adult predators who manipulate her skilfully from the first chance encounter on the Internet (for a macabre example see Eichenwald, 2005). The mobile phone also adds a new dimension to our personal freedom and it definitely alters and complicates the parental role.

The empirical findings reported above demonstrate a rapid ongoing movement among modern youths into a new world that they are actually helping to build at the same time. They often navigate it with greater skill than do their elders, but lacking the experience and cynicism that only comes with age, they are alarmingly vulnerable to all kinds of influences.

It is a formidable challenge to facilitate the fruition of the noblest dreams attached to the new media, while at the same time shielding children and young people from the menacing forces that have demonstrably taken partial possession of the very same technology.

## Notes

1. For a comprehensive account of the survey procedures, see Broddason (1996).
2. The knowledgeable reader will note that some items, which have become popular in the past two years, are missing.
3. Paradoxical as it may seem in view of the present findings, book publishing flourishes as ever before in Iceland at the beginning of the 21st century and newspaper publishing is at an all time high in terms of printed and distributed copies.

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