

A Swedish Perspective on Media Access and Use

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During the last two decades of the 20th century, we have witnessed radical changes in the media world. While in the 70s traditional print and audio-visual media were still dominating, several new screen media entered the scene in the beginning of the 80s and became increasingly prevalent in people's lives. The 90s bear above all the impression of the new information and communication technologies (ICT). This development has opened the doors towards greater individual freedom and facilitated the prospects of adopting specific styles of media use to suit one's preferences and circumstances.

The changes in the media area are not uniform, nor do they progress at an even rate. There are great variations in access to the new media across cultures and societies as well as within them. In an international perspective, the Nordic countries are in many respects pioneers of new media technology and the appropriation of such technology by ordinary people. Many media have become familiar equipment in the homes, their use intertwined in everyday routines. Still, homes differ substantially in their access to media. Many homes are media saturated, while others are comparatively media poor. Some families are eager to acquire the new media equipment, others bide their time. Education and socio-economic status, family composition, age, gender and personal interests are among the factors regarded as influential for the acquisition of various media. The same factors also influence the use made of the media.

The question of media access is a basic one, as the accessibility of a medium limits the use made of it. Naturally, physical access is a fundamental prerequisite for use, though not a sufficient one. Naturally, media can be used not only at home, but also in friends' homes, in school, sometimes at parents' workplaces or in public places. Compared to other European countries, the Nordic countries seem to provide superior public access to media (Johnsson-Smaragdi, 2001a).

Availability at home facilitates use, and even more do personal access. Yet, using or not using a medium is not entirely a matter of easy physical access, which is only the first step. It is also a matter of social, cultural and psychological accessibility or desirability. These factors are related to the degree of social acceptance of a medium in a culture, to the social context in which it is used and to personal interests, habits and attitudes. To reduce inequality and information gaps between social groups and individuals, it is thus

not sufficient to reduce differences in access. For a medium to be accepted and used, it is equally or more important to enhance its social and psychological desirability.

The questions I will address concern different aspects of

- media access – both home access and personal access
- use or non-use of single media or groups of media
- time with media – overall time and time with single media
- media combinations and individual styles of use – media menus
- questions of social differences and gender gaps

I will discuss and reflect upon these aspects with reference to both longitudinal and comparative empirical data¹.

Media Access at Home

Media access in Swedish homes has increased rapidly in recent years. At the end of the 90s, TV and video, radio, some form of audio equipment and books were found in most Swedish homes. These more established media have long been familiar to and integrated into the households, especially among families with children and teenagers. The more recent ICT media have gained growing acceptance during the 90s and are rapidly diffusing into a clear majority of the households, the speed of diffusion being most pronounced among families with teenagers. Between 80 and 90% of these families had home access to a computer at the end of the 90s; about 75% had a mobile phone and about 60% Internet access (Johnsson-Smaragdi & Jönsson, 2001b). These figures are rapidly changing, however, due to the diffusion process, giving an indication of media saturation at the end of the decade.

Homes may differ substantially in their overall access to media at a given point in time. When summarizing home access to nine different media² in 1997, in families with children aged 7-16 years, the mean access was almost 6.5 media. Almost 15% of these households could be characterized as media poor, having at most four out of the nine media in question. About 30% was media saturated, having access to at least eight of the nine media. Socio-economic differences were evident here: higher occupational level, higher education and higher income meant greater access to new digital media in the home (Johnsson-Smaragdi, 2001c).

Over time, overall media access clearly increases in the households. Summarizing the changes in overall access to the same six media³ between 1985 and 1998 in families with teenagers, the average access rose by about one medium every fourth year: from 2.7 media items in 1985, to 3.6 in 1989, to 4.6 in 1994 and then to 5.3 in 1998. If eight media items are included in the calculations for 1998, the average is 6.6 items. There are no or only slight indications of demographic differences in overall access to media at home: parents' socio-economic status⁴ makes a significant difference in overall media access only in 1985. Families with lower SES had in 1985 on average access to more media in home (2.7 media compared to 2.4 media for the low and high SES groups, respectively).

Some crucial points may be worth stressing as concerns analysing socio-economic differences in home access. The observations are made in relation to access in families with children, from the middle of the 80s until the end of the 90s.

First, access to new media equipment among different social groups could not be stated generally. The type of medium must be specified. Some media tend to first attract certain socio-economic groups. When video began to spread among the population in the first half of the 80s, a greater proportion of the low SES group accepted it, while the high SES group was more reserved. In addition, access to TV game consoles is higher throughout the years in the low SES group. Computers, on the other hand, were viewed very differently already upon their introduction. In this case, the high SES group acquired more access from the outset, and continues to do so, even if the difference diminishes and is no longer significant. The high SES group also has greater access to Internet, while there is no significant difference in access to mobile phones (Johnsson-Smaragdi & Jönsson, 2001b).

Second, existing socio-economic differences are likely to diminish over time as the diffusion process continues and the media become available in most homes. Naturally, when media are found in most homes, as in the case of TV, radio, stereo or other audio equipment, there are no SES differences. Differences tend to be most pronounced in the beginning of the diffusion process, and thereafter level out relatively rapidly. As for video, in 1985, 44% in the low SES group had home access, compared to only 16% in the high SES group. Since 1989, there has been no difference in access across social groups. For computers, the social differences level out more slowly: the high SES group kept their advantage in access for more than ten years, and it ceased to be significant first in 1998, when between 80 and 90% of the families with teenagers had home access to a computer (ibid).

Personal Access to Media

Young people's bedrooms are increasingly well equipped with media. Personal access to new communication media, like mobile phones, is also increasing. This development makes room for more individual and privatised use of the media. Bovill and Livingstone (2001) conclude that a media-rich bedroom may contribute to the shifting of the boundary between public and private spaces. With private access you gain control over the medium, using it more extensively, both in terms of frequency and in terms of time. It is clear that personal access has consequences for how the media are used.

The most common media items in bedrooms are radios and other audio equipment. A majority of youth has a TV set. In 1998, about a fourth each also had a video and a computer. The bedrooms thus tend to be increasingly media centred, equipped with diverse audio items, TV, VCR, TV games consoles, computers and sometimes even with Internet connections. The average number of media items in 1994 was about three out of six, and in 1998 four out of eight. Calculated as a ratio between current access and maximum number of media items, it turns out that average access is about the same in 1994 and 1998.

There are no significant differences in personal access with reference to the SES of the family. From a socio-economic perspective, thus, equality reigns between Swedish teenagers. On the other hand, there are considerable gender differences in personal media access (Table 1). Generally, teenage boys have greater access than do teenage girls to most media in their rooms. The greatest differences between genders appear in access to computers and games. Further, these gender differences exist irrespective of the SES of the teenagers' families. In all SES groups, girls generally have less access to screen and digital media in their rooms. On average, boys with low SES have the highest access to

media, girls with high SES the least. Gender and SES thus interact, creating more pronounced differences between boys and girls from different social backgrounds. No equality exists between the genders in access to personal media (Johnsson-Smaragdi & Jönsson, 2001b; cf. Johnsson-Smaragdi, 2001c).

Table 1. Teenagers (15-16 years) Access to Media Items in Bedroom 1994 and 1998 (%)

	1994			1998		
	All (463)	Boys (245)	Girls (217)	All (434)	Boys (231)	Girls (203)
Radio	86	87	85	81	84	78
HiFi	75	75	74	87	89	84
TV	55	67	42 ^c	59	67	49 ^c
Video	19	26	11 ^c	24	30	17 ^b
PC/TV-games	30	46	12 ^c	37	54	18 ^c
Computer	18	30	5 ^c	27	37	15 ^c
Internet				15	22	6 ^c
Mobil				14	21	6 ^c
Mean no.	2.8	3.3	2.3	3.9	4.4	3.3
Media quota	.47	.55	.38	.49	.55	.42

Note: Significant differences are denoted as $a = .05$; $b = .01$ level; $c = .001$

An explanation for gender inequality in media access may be differences in interest in and different attitudes towards technical innovations. Girls may have other priorities and not see the same value in owning media items. For boys, the computer is often interesting in itself and boys tend to take an interest in the technical aspects, while girls accentuate the uses to which computers can be put. More girls than boys are among the later adopters of new media. In the end, this may result in increased interest and knowledge gaps.

Non-Users of Media

Children and teenagers nowadays have access to a range of readily available media. Media use is interwoven into their everyday life; they fit it into their other leisure-time activities. The extensiveness of use may differ, depending partly on the medium's availability and the degree of control that may be exerted over it.

The availability of media is important, but as mentioned above, to actually make use of a medium, it must also be socially, culturally, and psychologically accessible or desirable (Johnsson-Smaragdi, 2001a, 2001b). The degree of social acceptance of a medium in a specific culture, the social context in which it is used, as well as personal motivation, shaped both by past experiences and expected rewards, are of major importance – as are the habits, attitudes, and overall lifestyle of the individual and of the group(s) to which he or she belongs.

There are always individuals and groups who seem to discard some media. The non-users of a medium are interesting in that they provide evidence of the exercise of individual choice. A low proportion of non-users means that most young people use that

medium at least sometimes; a high proportion of non-users means that large groups tend to avoid certain media altogether. Evidently, varying proportions of the young choose not to spend time with certain media. Using them does not seem to be an option for these teenagers. Table 2 displays the proportion of young people, at different points in time, claiming they spend no time at all with audio, audio-visual, ICT's or print media, respectively (Johnsson-Smaragdi & Jönsson, 2001b).

Table 2. *Proportion of Young People Not Using Media in Leisure Time (%)*

	1976	1980	1985	1989	1994	1998
Books	41	30	16	13	14	24
Newspapers	6	1	5	4	16	17
Magazines	18	20	na	26	29	17
Comics	19	18	na	24	39	38
TV	1	0	1	0	0	0
Video	–	–	11	7	1	6
Computer	–	–	–	–	35	16
PC/TV-games	–	–	–	–	27	24
Internet	–	–	–	–	–	27

Note: In 1976 to 1985 the question concerned number of books read (during the past three weeks or, in –85, the past month), in 1989 to 1998 the question concerned how frequently they used to read books (in days a week or month).

Practically all of the teenagers watch TV at least sometimes; during the 25 years in question, almost no one indicates that they never watch. Also, only a few percent of respondents do not use the video. Further, a growing majority uses the new ICT media in their leisure time. They turn on the computer, connect to the Internet and play computer games. As for print media, there is a comparatively large, and growing, proportion stating that they never read in their spare time. They do not care for reading books, newspapers or magazines. In a comparable investigation among teenagers of the same age conducted in 1997, 22% stated they never read books (Johnsson-Smaragdi, 2001c).

For most media, availability at home makes a real difference. Availability at home is important as most of the non-users are found among those without home access, both in Sweden and in other European countries. The sizes of the nonuser groups vary across countries depending on the specific medium in focus (Johnsson-Smaragdi, 2001a, 2001b). A great majority of Swedish teenagers use media if they are available. Nevertheless, apparently there are other barriers to overcome, since some with home access still never use a given medium. About one sixth of those with home access to a computer do not use it at all, and one tenth do not care about using the Internet even if they have a connection. On the other hand, it is also evident that many young people use a medium despite its non-availability at home. Young people find means of overcoming the barrier of no home access when the social obstacles are low and the media are socially or psychologically attractive in their view.

Different options created by combining the dimensions of access to, and use of, media may be visualized in a typology as in figure 1.

Figure 1. Typology Over Media Access in Home and Media Use

		Medium Available in Home	
		Yes	No
Medium Used	Yes	1 Available and Desirable	3 Not available/ Desirable
	No	2 Available/ Not desirable	4 Not available Not desirable

Source: Johnsson-Smaragdi, 2001a.

Time with Media

The media are an essential and integral part of most young people’s lives. Much of their leisure time is devoted to media. Today, Swedish teenagers spend more time with media than any earlier teenage generation. Most time is spent with TV and music, but also on video, computer and games as well as on print media. The individual variations in time spent on media are considerable, however, depending on the medium’s accessibility in various respects and on personal interests.

Despite the new digital media recently available, television is still the dominant medium, in terms of both number of users and amount of time spent. Everyone, everywhere watches television, and television viewing – along with listening to music – makes up the main part of his or her media time. Time in front of the TV screen has increased gradually during the past three decades, from on average ten hours of habitual viewing a week in the 70s to 21 hours in the 90s. Gender and social background, separately and in combination, affect viewing time. Boys with low SES spend more time before the screen than do girls with high SES. The variation in viewing time is considerable. In the 70s and early 80s, 35-40% viewed for an hour or less a day; in the 90s, this figure is only 12-15%. Teenagers viewing for three hours or more a day constituted less than 10% of the teenagers in the 70s and early 80s, but 25% in the 90s (Johnsson-Smaragdi & Jönsson, 2001b). In the European comparative study from 1997, an equal amount of time before the screen is reported for Swedish teenagers (Johnsson-Smaragdi, 1998; Beentjes et al., 2001).

Nowadays, more TV-channels are available through cable or satellite broadcasting, and the broadcasting time has increased in all channels. Furthermore, in the 90s the supply of program genres that attract adolescents has greatly increased. At the same time, the VCR has become available in the home to over 95% of the teenagers, and is used both as a home movie player and as a time shifter. Many teenagers have both a TV and a video in their bedroom. A rise in access and choices seems to increase the time before the screen among teenagers.

Compared to TV viewing, the average time spent with computers is still low, though it has increased steadily during the 90s. At the end of the decade, a teenager spent on average four hours a week on the computer. Almost half of the users use the computer for less than an hour a week. Only one fifth use it for more than an hour a day. The gender differences are considerable, with boys spending twice as much time as girls. The com-

mon apprehensions about growing social inequalities in relation to computer use gain no support in our time data. Irrespective of socio-economic background, an equal amount of time is devoted to computers, both in total and among the users. Our attention must focus more on the very real gender differences instead of on the insubstantial social differences (Johnsson-Smaragdi & Jönsson, 2001b).

Time with a computer may be devoted to a range of activities. Computers may of course be used both for entertainment and for information. Most teenagers use the word processor, play games, surf on the Internet, and send e-mail messages. Usually they combine several applications, some being used more frequently than others. Due to the combination of applications, the teenagers can be divided into three broad groups:

- The restricted, who use the computer mainly to play and to write
- The communicative, who besides playing and writing concentrate on the communication potential of the Internet, like chatting and e-mail
- The versatile and diversified, who engage in a host of different activities

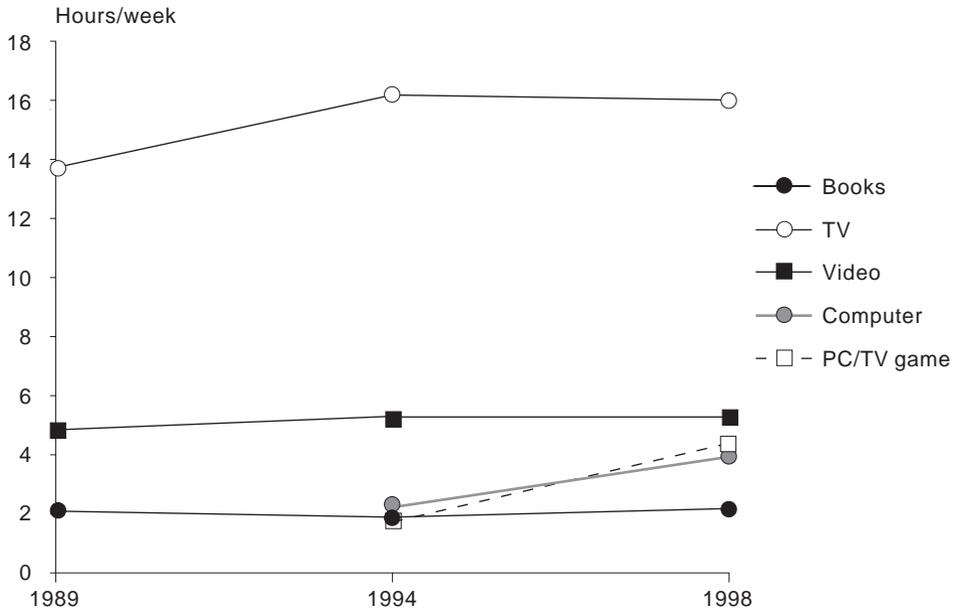
In the first two groups, the number of boys and girls is about equal, but in the third, the boys are four times as many as the girls. With more applications to work with, more time is spent on the computer. In the restricted group, the average time is about one hour a week; in the communicative, it is 4 hours and in the versatile, it amounts to 8 hours a week. In all three groups there are considerable differences between boys and girls in time spent (*ibid*). What will this mean for the future?

It is sometimes feared that the screen media and the new digital media will outrival reading as a leisure time activity, especially the reading of books. The data are somewhat equivocal in this case. Longitudinal data indicate that the group of teenagers (15/16 years old) not reading at all has increased towards the end of the 90s, from about 15% in 1985-1994 up to 24% in 1998 (see Table 2). The group of non-readers among 11- to 12-year-old children has also increased, from less than 5% in 1989-1994 up to 10% in 1998. Comparable data from 1997 show the proportion of non-readers among 9- to 11-year-olds to be 18%, among 12- to 14-year-olds 15%, and among 15- to 16-year-olds 26% (Johnsson-Smaragdi, 2001a). It is, thus, above all among teenagers that we find an increasing proportion of non-readers.

There are, however, no signs that the time devoted to reading has decreased, despite increasing time with other media. The time for book reading among teenagers in general has been stable at an average of 2 hours a week since the end of the 80s, despite the growing group of non-readers. Among those still reading books, the time spent on reading has on the contrary increased, from an average of 2.3 hours in 1989 to 2.8 hours in 1998. About half of those reading books could be characterized as light or infrequent readers, devoting an hour or less a week to books. Only 10% read for more than an hour a day. Gender differences are pronounced: teenage girls spend more time reading than do boys, 2.5 hours compared to 1.5 hours a week, respectively.

Figure 2 displays the average habitual time devoted to books, screen and digital media between 1989 and 1998. Clearly, teenagers devote most of their media time to TV; time with computers and digital games has increased but is still considerably lower, while time with the video and books has not changed during the 90s.

Figure 2. Average Time with Some Media Among Swedish Teenagers Between 1989 and 1998 (hours a week)



Media Combinations and Styles of Use

With access to a host of different media and media types and an increasing degree of control over the location, timing, purpose and length of use, people’s ability to compose an individual media diet is facilitated. The individual media choices and combinations are the products of a dynamical process, which depends on social, cultural and personal factors as well as on the alternatives available.

Current research indicates that more specialised user groups are developing. At the same time, media use tends to be more additive and integrated, causing the total media time to rise. Several user groups are discernable that combine media in varying ways and spend various amounts of time with them. The *low users* are the largest of these groups, not spending very much time with the media. Other groups favour a certain medium above other media, for instance the *TV-specialists*, the *computer specialists* and the *book fans*, or certain types of media, such as those favouring *TV and video*, *TV and TV-games* or *computer and PC-games* (Johnsson-Smaragdi, 2001a). There is considerable variation among those groups in the time devoted to media. The low users spend 2.5 hours a day with media on average, while the groups favouring the computer or combining games playing with computer or TV use spend up to 7 hours daily with the media⁵.

The Present and the Future

Today, Swedish teenagers spend more time with media than has any previous teenage generation, and there is every reason to assume that their media use will continue to in-

crease. Their homes and bedrooms are filled with media of all kinds. But there are variations in media access and use that are related to various indicators.

Acquisition of new media equipment in general is seldom explained by the families' socio-economic background. When comparing access to specific media items, however, the picture changes. Different media tend to first attract different SES groups. Thus, the type of medium must be specified. There are further substantial gender differences in personal access to media in one's bedroom, but no such differences as regards access at home. Teenage boys have greater personal access to media than do teenage girls.

The habitual time spent before the television screen has increased during the past 15 years. Considerable variations in viewing time exist. Boys spend more time before the screen than do girls, and teenagers from families with low SES spend more time than do those with high SES. Furthermore, the categories of gender and social background interact, such that boys from low SES families spend the most time before the screen, and girls from high SES families the least.

Time spent with computers and computer games has doubled during the last half of the 90s. Boys spend considerably more time than do girls with the new ICT media: computers, computer games and Internet. The teenager's social background makes no difference in this respect. The variation between computer users is considerable: while some spend less than an hour a week using it, others spend more than an hour a day. There are different types of computer users that can be categorized in terms of the activities they perform. These groups are engaged in activities ranging from one main activity to many different ones. The time spent with the computer varies considerably between these user types.

There has been no decline in average reading time among teenagers in general during the past decade. On the contrary: the readers read more towards the end of the 90s. The proportion of non-readers has increased, however. There are gender differences, but no significant social differences in reading time: girls read more than boys.

Our findings call into question some common stereotypes concerning teenagers' media use. The common opinion that teenagers have left the TV screen in favour of the computer does not receive any support, nor does the claim that TV or the new ICT media have driven reading out of the market.

An interesting outcome of this study is how little support it provides for the displacement hypothesis, that is, the idea that when new media come along and young people begin to adopt them, they will necessarily reduce the time they devote to old media. Instead most teenagers seem to increase the total time they spend with media.

The gender-related digital divide shown to exist among young people might be a potential problem. Girls have lower personal access to the new ICT media; they spend less time with them and also use them differently. We may identify this as a problem, but must also ask why and for whom. Will this cause knowledge and information gaps, or perhaps entertainment gaps? Is it a problem for the girls who may actively have chosen not to acquire or spend much of their time with some media? Or might it be a problem for boys who fill their bedrooms and their time with media, choosing screen and digital media instead of other activities? Alternatively, is it a problem for adult society or for our future society? The concerns may be real and this may be an important question to discuss, but it must be remembered that our freedom and ability to choose our own lifestyles and compose our own media mix also involves the option of not choosing a certain thing or activity – may it be reading or computer use. Perhaps the girls are not to be pitied.

Notes

1. References are made to two empirical data sets: the longitudinal Media Panel Program, where more than 5,500 children, teenagers and young adults have participated in longitudinal and cohort studies conducted between 1976 and 1998; and the Swedish national study forming part of the multinational comparative research project. "Children, Young People and the Changing Media Environment" directed by S. Livingstone at LSE. More than 1,600 Swedish children and teenagers between 7-16 years participated in this study conducted in 1997.
2. The media in question were TV, satellite-TV, VCR, TV-console games, radio, stereo/HiFi, computer, CD-Rom and Internet access.
3. The media counted in 1985, 1989, 1994 and 1998 were radio/HiFi, TV, satellite-TV, VCR, TV-console games and computers. In 1998, both six and eight media were included, adding Internet access and mobile phones.
4. Occupational, or socio-economic, status (SES) here refers to the parent with the occupation ranked highest according to the Swedish socio-economic classification (SCB, 1989:5). Low SES includes working class and lower professionals, middle SES middle professionals and high SES higher professionals.
5. In these figures, listening to music and radio are not included.

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