

# **Preschoolers and the Internet.**

**Will children start to use the Internet  
when they start walking?**

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### **Will children start to use the Internet when they start walking?**

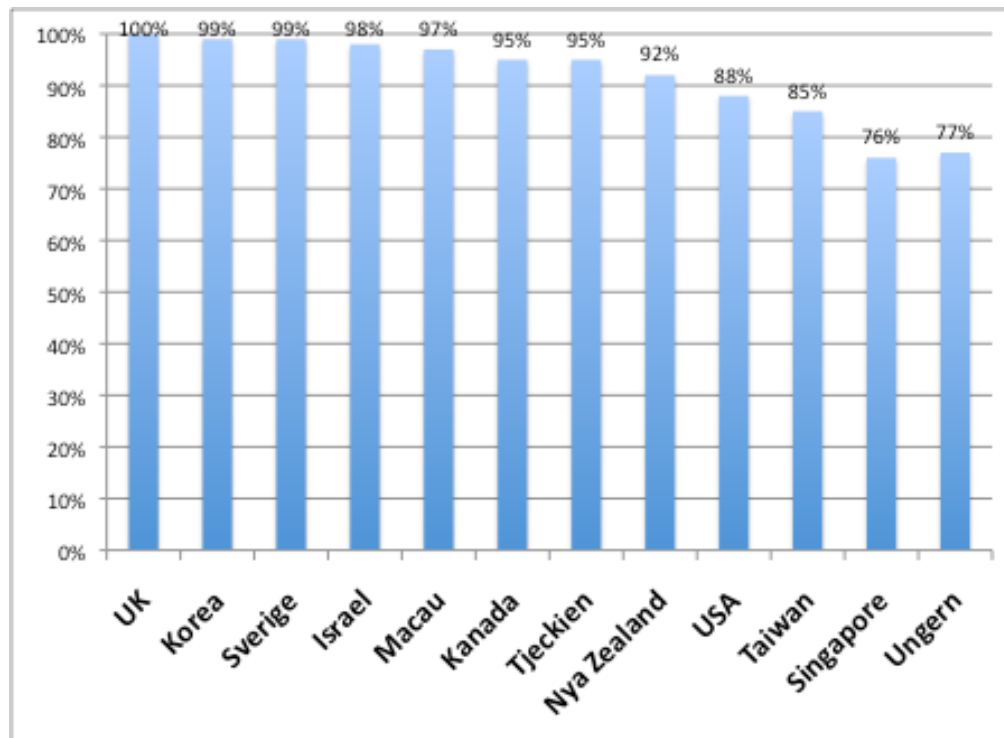
A new technology, like the Internet, does not diffuse throughout the world with the same speed in all countries. Today the diffusion has just begun in many poor countries, while three out of four are already using the Internet in many wealthy industrialized countries. In Europe, about half of the population are using the Internet and the other half is non-users.

But if we look at the young people around the world, who grew up in the nineties, the differences are less between countries. While the elderly are reluctant and not much interested, the Internet has a great appeal for the young, even in countries where a majority of the population has no access to the Internet.

Virtually all young people in the most developed countries are using the Internet. To be found here are the Nordic countries and the Netherlands. But also in countries like the Czech Republic and Hungary, where a majority do not have access to the Internet, are 80 percent of the young using Internet. The same applies to young people in southern Europe such as Italy and Spain (Eurostat 2008)

But the Internet has, in the most developed countries, even spread further down to younger teenagers. Nearly all, between twelve and fourteen years, are Internet users. The same situation is to be found also in Asian countries like Korea, Macau and Hong Kong, and English-speaking countries like Australia, New Zealand and Canada.

It is important to remember that all these countries belong to the world's rich industrialized countries, the 28 so-called OECD countries. Living conditions in developing countries is completely different with the result that only a few percent of the population has access to the Internet. But we can see that even in China, where only 10% of the population have access to the Internet, 39% of young people between 18-25 years are using the Internet. It corresponds to 48 million Chinese young people and if we add the 10 million Chinese who are younger than 18 and use the Internet, the total sum will be 58 million young Chinese Internet users (CNNIC, 2007). Here is a great disparity between those living in rural areas and in large towns. This also applies to a country like Russia where the young people in St. Petersburg are using the Internet almost as much as in Sweden (Petrov & von Feilitzen, 2008).



*Diagram 1. Proportion of young people 12-14 years who are using the Internet.*

Source: WIP 2009, APIRA 2007.

Internet statistics figures are clear: In all the rich industrial countries, the overwhelming majority of young people from twelve years and upwards are users of the Internet. We can here speak of a global Internet Generation growing up with the Internet as part of their everyday lives.

But the diffusion of the Internet does not stop with the older schoolchildren. Neither with children in junior school but the technology is spreading even further down to preschoolers. However, we do not know so much of what is going on here. Few studies are conducted. The rapid spread of the Internet down the ages has surprised even the researchers.

The situation was quite different eight years ago when we conducted our first survey. Then it was people in the ages of 30 to 40 who dominated among Internet users. The students were also frequent users, but teenagers and school children had not yet become involved. Since then and particularly in recent years, when families with children has become the most intensive Internet users, have the rising generation started to transform the Internet with instant messaging, blogs and communities.

The purpose of this paper is to identify and analyze these developments and try to give a picture of how widespread the use of the Internet is among children and preschoolers? How

often do they use the Internet? How much time do they spend online and what are they using the Internet for? To answer these questions, we have made use of three different methods.

### **Three methods of investigation**

To question and interview children and young people have their problems. The youngest is difficult to interview, if you do not make house calls, and the best is to consult parents. In our annual survey "The Swedes and the Internet", many parents are included in our representative sample (16+ years), and when we are interviewing parents about their use of the Internet we also include some questions about their children. 2008, we have also made a special study of adolescents aged 12 to 16 years. Since we still have to ask parents for permission to interview people younger than 16 years, we also ask some questions about the parents' own Internet use. In this way, we have carried out three different studies which partially overlap, and where there are several opportunities to compare children and parents' use of the Internet.

1. *Adult survey*. The Swedes and the Internet. Interviews of a sample of the population from 16 years with no upper limit. (Number interviewed 2008: 2057)
2. *Parents Survey*. Further questions in the adult survey to parents who have children between 3-14 years, on children's use of the Internet. (471 interviewed parents with 779 children)
3. *Youth Survey*. Interview of young people between 12-16 years and their parents. (207 adolescents)

### **Access and use**

Families with children today represent the best media technology well-equipped group in society. Almost all in Sweden, 94%, have Internet access, which means that children and young people are growing up in an environment where the Internet is an integral part of the family everyday life. They have good opportunities to learn to use new media technology nearly as soon as they start to walk.

2008 have every fifth (21%) three-year-old used the Internet and among five-year-old children, the proportion rose to half (51%). Among nine-year-old, the proportion of Internet users is over 90% and from eleven years of age, it is difficult to find someone who does not use the Internet.

The use of the Internet among preschool is however limited, and it is only from ten years and upwards as the majority have become daily users. The highest proportions of daily users

are to be found among teenagers, with a peak at 16 years. This frequent usage continues up to the age of 30.

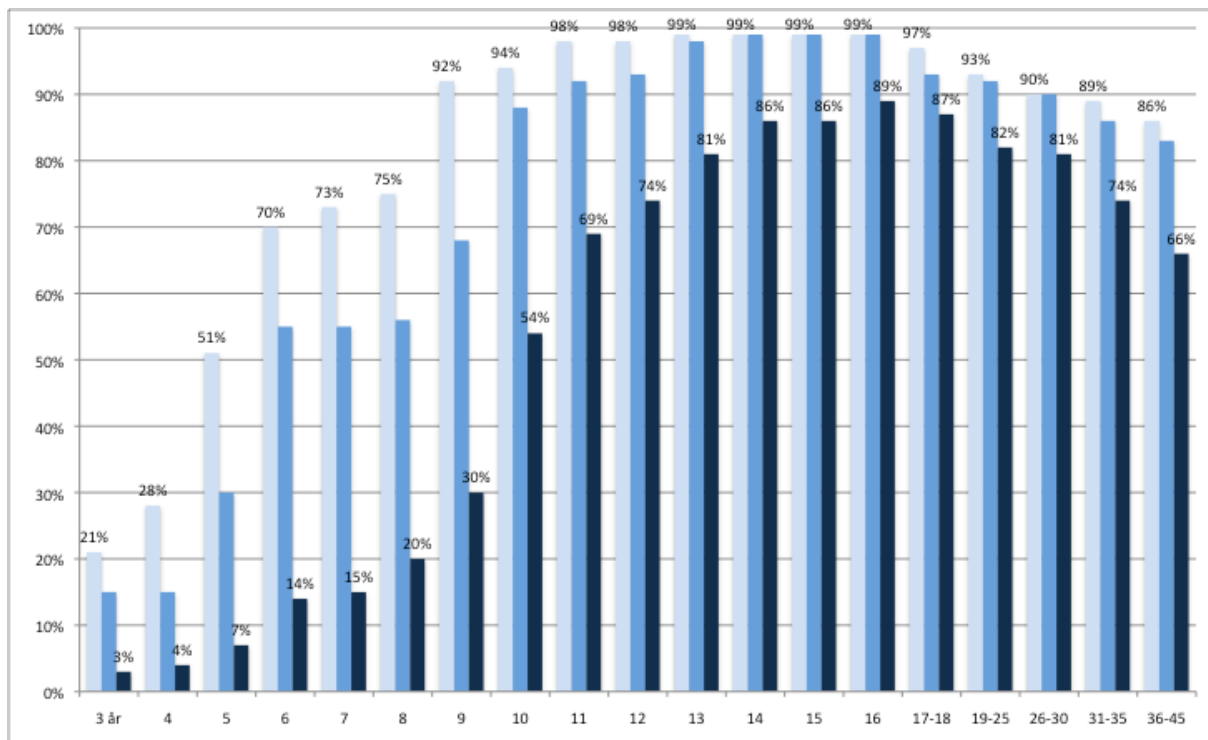


Diagram 2. Frequency of Internet use in different age groups in Sweden 2008.

Source: The Adult survey, Parents survey and Youth survey. World Internet Institute 2008.

According to the estimates of the parents, the time preschoolers spend online is quite restricted. The youngest, 3-4 years old, are on average online less than an hour a week. This time online is nearly doubled every second year with a maximum at 18 hours a week (mean at home) around 16 years (Findahl & Zimic, 2008).

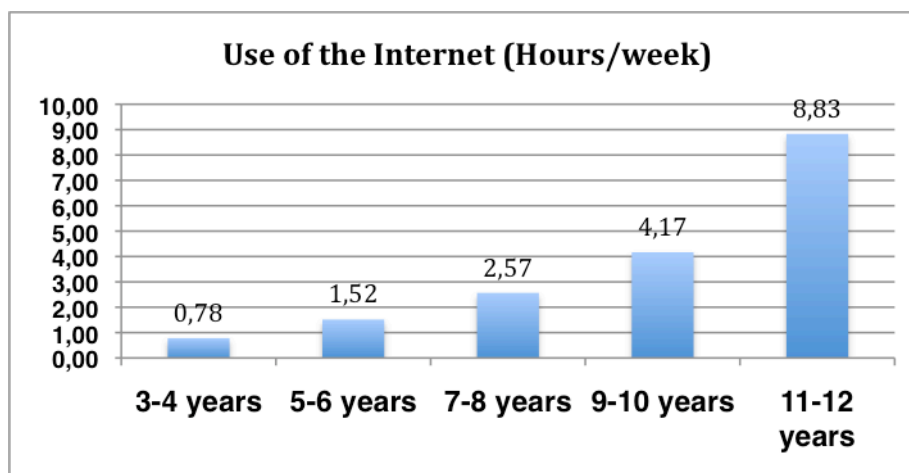


Diagram 3. Time (hours/week) online in different age groups.

Source: Parent survey. World Internet Institute 2009 (Preliminary data)

## Parents and children

The youngest children need to have help of their parents to start using the Internet. Is there a link between parents and children, so that if parents are frequent users their children will be that too and vice versa? Yes, there is such a link, but it is not as strong as expected (not.  $\text{Sign} \leq 0.05$ ), since many children use the Internet more than their parents. 78% of children are daily users against 59% among parents, and only 1% of children use the Internet rarely or never, compared with 8% among the parents.

*Table 1. Frequency of Internet use among parents and their children (12-16 years)*

Source: Youth Survey, World Internet Institute 2008.

	Rarely or never	Few times weekly	Daily	
Parents	8 %	33 %	59 %	100 %
Children 12-16 year	1 %	19 %	78 %	100 %

It is even so that there are several cases where parents do not have access to the Internet, but where their children are still users. This applies to the 18 children over eight years whose parents do not have access to the Internet. 17 of these children are Internet users. 10 are daily users. This demonstrates the attractiveness, or the strong pressure that the Internet has on the Internet generation.

There are no differences in access and use between boys and girls, even if there are differences in what boys and girls do online. These differences become more evident when children grow older.

## The first phase (3-6 years): Games and Video

Many children in Sweden get their first contact with the Internet, when their parents connect the computer to the SVT's Bolibompa, which is the website of a daily children's program on the public service television. Bolibompa is for them, even three-year-old children, already something familiar. They recognize the program and recurring characters from children's programs on television. On the Internet they are offered videos and games that they can control by clicking. Many games are interactive educative games such as Hotel Chanterelle. Popular videos can be replayed and seen many times and any time.

Help from parents or older siblings is initially necessary to get things to work, but the most basic games and selection of films can be controlled with clicks. The next step is to enter

the name of the children, or get help to do it. Names and symbols are often combined.

Bolibompa, with its own website, is the dominant website for Swedish children. But there is also Disney Channel and Barbie. For the a little older there is Nintendo's Pokemon, with more speed-filled games, and they can buy Pokemon cards. Even Lego has a website with games. On the Internet there are also puzzles and there are opportunities to download images, for example of horses, if you like horses.

All of these opportunities are used more and more as the online use are grown into a habit, from a more occasional use to a regular use of the Internet at least a few times a week. Gaming has then become the dominant activity.

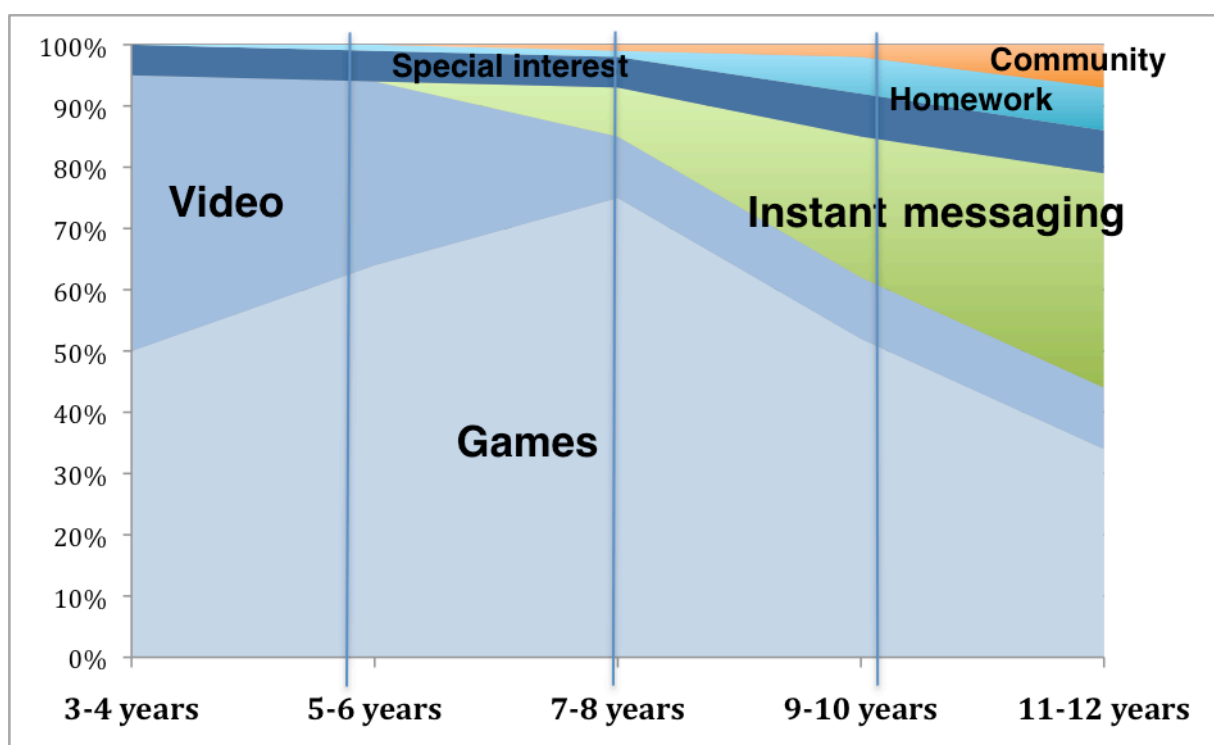


Diagram 4. The content in children's Internet use as their parents see it  
Source: Parents Survey, World Internet Institute 2008-09.

### The second phase (7-10 years): More and more of communication

When the children come of school age and have learned to read, a whole new world opens up for them, not only of books and newspapers but also on the Internet. They can search information, find ads, but above all, they can write. They can keep in touch with their friends via instant messaging and communicating via the Internet is becoming an increasingly frequent activity, while they still continue with games. The nature of the games change and some are aware of more complicated games such as World of Warcraft, an online role-playing game for multiple players. Video viewing is reduced. At the same time the world of

communities are opening up with social communities but also more special interest communities like “Star Doll” for the fashion enthusiasts and “The Stable” for those interested in horses. Some are also using the Internet as help to do their homework, even if the school for most in junior school play a minor role among their Internet activities.

### **The third phase (11-14 years): Communication and communities**

Among eleven-year-old children, three of four have become daily users of the Internet and the use is becoming more diverse. Many continue with gaming, but chatting with friends is of at least the same size, and interest in online communities is increasing, although it will still be some years until the extensive interest in communities is spread to all. Some align themselves with Face book and other upload pictures to a Picture Diary. Some have an interest in buying and selling things and many start using the Internet in school.

### **How do the parents' estimates correspond to what young people say?**

The above data on what children, 3-14 years, are doing online are taken from their parents' estimates. The age groups 12-14 years are also included in the youth survey in which young people themselves have had to answer questions. There is thus an overlap here, which opens the possibility for comparisons between parents and young people's responses.

We can first establish the fact that the parents seem to know quite well the extent to which their sons and daughters, 12-14 years, are using the Internet. Here is great consistency. Parents estimated that 86% of their 14-year olds use the Internet daily. The actual answer from their children was 85%.

Parents also have pretty good eye on that the gaming and instant messaging are the major activities, while the videos do not appear as much among 14-year-olds as among the younger. They are also aware that communities started to become interesting and that the teenagers also are looking for all kind of information online. There are also differences. It is more of young people claiming membership in communities than what parents know and more of the young people who say they use the Internet for schoolwork than parents reported.

This is perhaps not surprising. Activities such as gaming and instant messaging are easier to be aware of for a parent than what their children actually do and what pages on the web that they are looking up.

### **Home and school**

Almost all children in Sweden have access to the Internet at school, and the Internet is also

used in school, at least sometimes. But it is primarily in the home that young people use the Internet. When they start school already three of four are familiar with the Internet, and during the school years, they devote ten times more hours and minutes on the Internet at home compared with in school. The average figure of Internet use at home is over 12 hours per week while in school it is just over 1 hour per week. There are only a few percent of daily users of the Internet at school, while Internet use at home is a daily routine in most young people's lives (Findahl & Zimic, 2008).

### Mobile phones

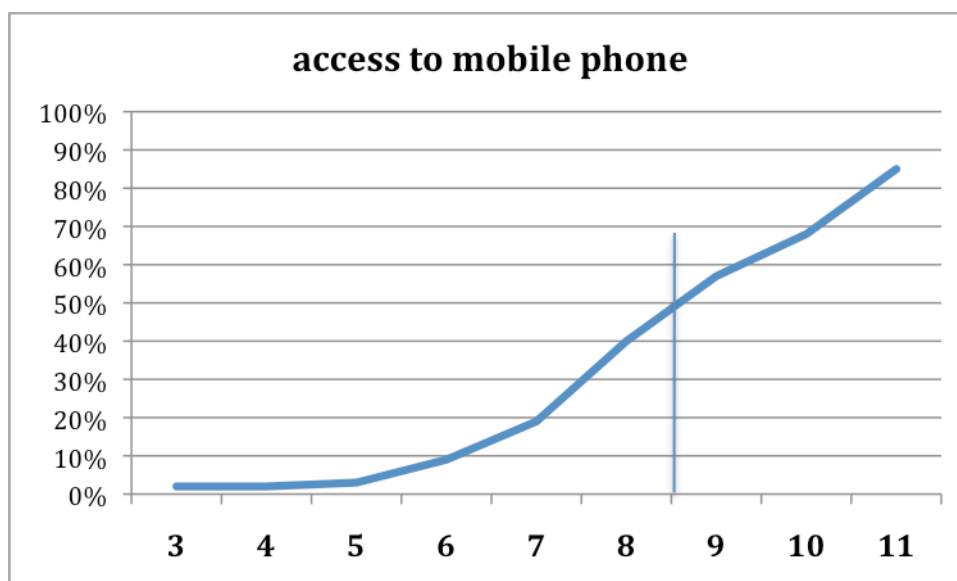


Diagram 5. Proportion of different age groups with access to a mobile phone.

Source: Parents Survey, World Internet Institute 2009. (Preliminary data)

Just as important as the Internet has the mobile phone become among teenagers. But the parents are furnishing their children with a mobile, long before they become teenagers. Between the age 8 and 9 have half of them have got access to a mobile. There are also preschoolers with a mobile, but they are few. The access to a mobile starts to speed up when the children starts school.

### Summary. Preschoolers and the Internet 2002 - 2009

The diffusion of the Internet among children does not follow the ordinary diffusion models. They cannot themselves decide to start using the Internet, but they can indirectly persuade their parents to invest money to buy a computer and an Internet connection. Most families with children belong to the early majority, who already are online, but there are parents with

no interest in the Internet and families with low income who have problems to afford an Internet connection. What seems now to happen, in many families with children, is an increasing interest and sometimes pressures to get an online connection to younger and younger children. If we use the age, when 50% of an age group have started to in some way use the Internet, as a measure, that age was 10 years 2002. Three years later, 2005, the critical age had decreased to 8 years. After another three years, 2008, the critical age when half of the age group have started to use the Internet, is 5 years. 2009, the critical age is now close to 4 years.

However, the most fundamental changes, during the last seven years have happened to children in ages around 7, when they start school. 2002, very few of them were using the Internet, and today 80-90% are online. These changes have happened not at school, but at home.

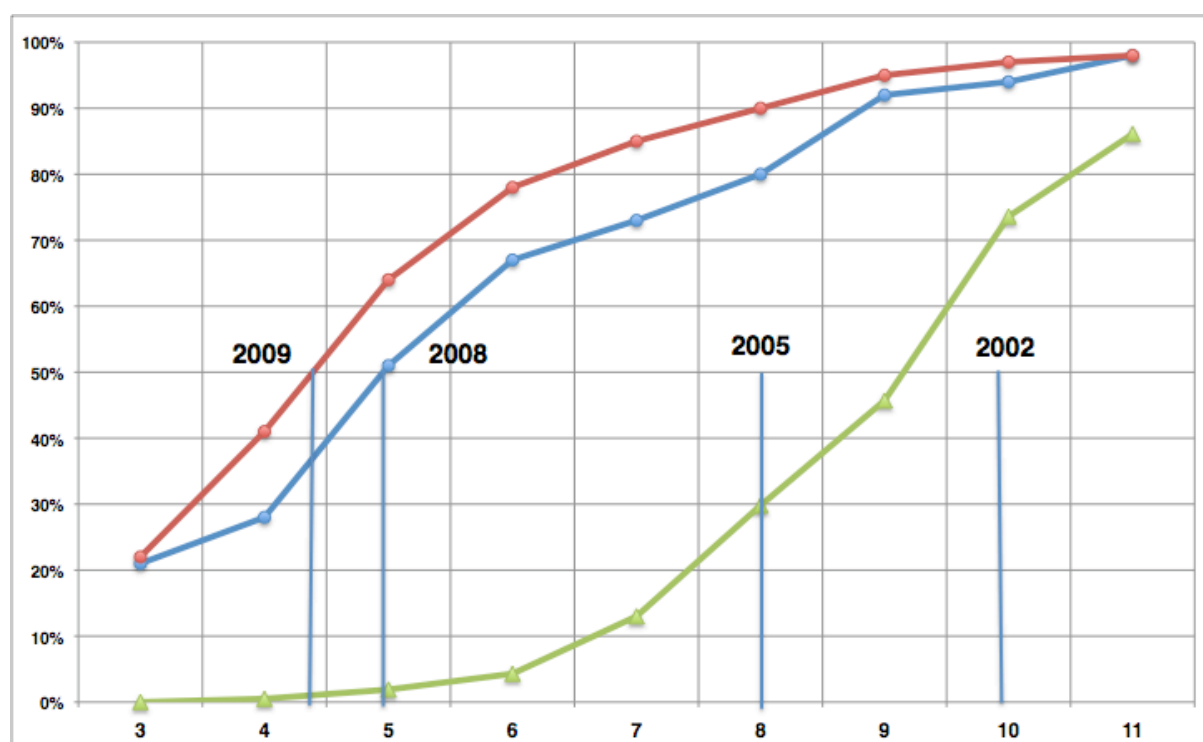


Diagram 6. Proportion of different age groups using the Internet. A comparison 2002 – 2009.

Source: Internet and the Swedes 2002- 2009, Parents Survey, World Internet Institute 2008, 2009 (Preliminary data).

This development with younger and younger Internet users is not something unique for Sweden. Similar earlier data is to be found in South Korea (MIC/NIDA, 2007) and US (Rideout et.al. 2003; NCES, 2001).

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