# THE USE OF THE WEB
## - FOURTH GRADER'S EXPERIENCES OF DOING INTERNET SEARCHES

Doctoral dissertation
May 2001
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## Abstract

The thesis focuses on how young students do when they search for information on the Internet at school, and how they express their understanding of this. The questions concerned what the Internet can bring to schoolwork, what search strategies the students use, and differences between searching at school and at home. Questions about reliability and critical scrutiny have been in focus, and this has been related to the students' models of the system Internet. The approach is ethnographic within a socio-cultural framework, which has its roots in both Dewey's and Vygotsky's ideas. Observations, small talk, questionnaires, interviews - both with the students and the teacher, and reading documents have all been a part of the study. There has been an aim to give the students' perspective on the research questions.

The Internet, according to the students, is complex, and can not be described in terms of good or bad. The Internet is a place where the main activity is searching. To have an interest is important, since it is funnier and easier to search when you are interested. Hypertext is a logical structure, which is easy to use. Besides practical knowledge when searching, the students talk about tools that help you to make meaning, e. g. interest, goal, knowledge about the source, and knowledge about what you are searching for.

The students have a clear picture of the Internet as connected computers all over the world. How the connections are described varies from 'wires' to advanced technological descriptions. Boys verbalize more knowledge about the technology. This is well in line with earlier research, which says that boys have a greater interest of technology than girls have. This can also be a way of expressing the expectations from the world around them rather than a genuine interest, since there is no support in data for boys *using* the computer in another way than the girls do. In my material three categories for choosing good web pages and not choosing bad web pages respectively were related to the students' descriptions of the Internet and how they talk about the reliability of the Internet. In the class there is interplay between those three aspects. The overlap is not total, which speaks against an underlying general talent. Instead it speaks for a learning which leads to possibilities to new learning and development in closely related areas.

The teacher tried to start out from the students' point of view in her teaching, she discussed a lot with the students, and tried to get their attention to scrutiny and reliability. This thesis points at the importance of this way of working in the classroom to get students aware of pros and cons of the Internet.

# SUMMARY IN ENGLISH

The aim of the study is to understand what young students (aged 9 - 11) do when they search for information on the Internet at school and how they reflect on this, when they are given the opportunity to work with it for a long period and with guidance. Throughout the study the aim has been to give the students' perspective on using the Internet. The questions concerned what the Internet can contribute to schoolwork, what search strategies the students use, and differences between searching at school and searching at home. Questions about reliability and critical scrutiny have been focused on, and this has been related to the students' models of the Internet system. Differences between boys and girls have been analyzed.

The study is an ethnographic case study and was conducted from August 1999 to June 2000 in a class consisting of 30 Swedish fourth graders. The material was collected by means of observations, conversations, questionnaires, interviews (both with the students and with the teacher) and reading documents. The students were aware of the purpose of my presence, which was mainly during their computer work. However, I was also there while they were doing other things in order to get to know them better and to gain cultural competence.

The students had the opportunity to work with the school computers once or twice a day, and a student's average time spent with a computer was 3 hours a week. Most of this time was at school. The school had an IT profile and was well equipped with computers. Most of the time the students could use 6 – 8 computers with Internet access, and once a week the teacher took half the class to a computer lab where they each used a computer with Internet access. The teacher tried as much as possible to start out from the students' interests in her teaching. She strongly emphasized their own responsibility and gave them opportunities to take this responsibility. Dialogues and discussions were central parts of the teaching, and events and situations both at school and at home were discussed and became the basis for further discussions and teaching. She often let the students try things out and discover themselves what help they needed to advance in their learning before teaching them or showing them something.

A socio-cultural perspective was a natural choice for me as a researcher since the teacher had a similar view of teaching and learning. This perspective has its roots in Dewey's (1915; 1916; 1933, cop.1986; 1936; 1938; 1980) and Vygotsky's (1981; 1986; 1995; 1999) theories. Dewey and Vygotsky both focus on the students' own interest and responsibility. They also put great emphasis on reflection and meaning. I have based the presentation of my results on these four key words. The part *Interest and responsibility* mainly show what the students *do* on the Internet, and *Reflection and meaning* how they *reflect* on it.

## Interest and responsibility

The Internet, according to the students, is a place where the main activity is searching. Things to search for are facts/information, people, interactivity and products/services. The distinction between 'business' and pleasure is blurred and consequently also the distinction between searching at home and searching at school. The difference they comment upon between home and school is that you are not always interested in what you search for at school. To have an interest is important, since it is more fun and easier to search when you are interested. Searching can be looked upon as a practical activity or as a series of choices. If it is looked upon as a series of choices, it means that you have to make decisions on various questions about the searching and its content. This is mostly considered as a mature behavior (e. g. Clinchy, 1996; Dewey, 1916; Perry Jr, 1970; Raths, Harmin, & Simon, 1979; Vygotskij, 1999). The students think that they can learn more about searching than they know now, and so be able to utilize the Internet better.

The students regard hypertext as a logical structure, which is easy to use. Compared to an index in a book, a system with links and search words is better. They are positive to using the Internet at school, since some work can be done in a faster, easier and/or funnier way. In comparison with books there is a strong predominance for the computer, but they see advantages with books as well as disadvantages with computers. The Internet is complex and cannot be described in terms of good or bad. Other researchers have reported that children (Wallace & Kupperman, 1997), or at least girls (Hernwall & Kelly, 1999), prefer books in a library to the Internet. This cannot be seen in this study. It can be seen that the Internet is a good tool to use to stimulate reflection on work and it can also give greater variety to the documents the students produce.

## Reflection and meaning

The students have a clear picture of the Internet as connected computers all over the world. How the connections are described varies from 'wires' to advanced technological descriptions. An analysis of the students' descriptions has been made from models described by Carroll and Olson (1988). Three different models were identified. The Internet can be described as a *surrogate*, which means that the Internet is seen as a substitute for something, with the difference that it is better in some respects. It can also be described as a *metaphor*. In that case, the focus is on a comparison between the Internet and something else with a similar function, e.g. the telephone or a library. The third way of describing the Internet is to compare it to a *network*. The network model, which Carroll and Olson call network representation, is a kind of combination of surrogates and metaphors, but the most characteristic thing about the network model is the possibility of making choices.

It seems that the different models reflect the students' reflections on the structure of the Internet. Those who say that they have only reflected a little or not at all on the structure of the Internet describe the Internet to a great extent as a surrogate, and those who have reflected a lot describe the Internet as a network. More boys than girls express the network model and boys verbalize more knowledge about the technology connected with the Internet. This is well in line with earlier research, which says that boys have a greater interest in technology than girls have (e. g. Pedersen, 1998). This can also be a way of expressing the expectations of the world around them rather than a genuine inter-

est or lack of interest. The boys describe the Internet to a greater extent in more advanced terms than the girls do, but even the boys who have not reflected a lot on the Internet system use more technological concepts than the girls do.

Most of the students know that anyone can put a web page on the Internet. The reasons why people put them there are to be nice to others, to have fun themselves, to become famous, to get in contact with others or to advertise. Reflection on the content has to have a meaning, and there is no point in reflecting just for reflection's own sake.

What the students say about the reliability of the Net is reported in three categories, reflecting different levels of reliability. The categories take into consideration both traditional and feministic theories about critical thinking. The students whose statements have been placed in category 1 do not reflect very much on the reliability of the Internet. Those in category 2 say that you can rely on some things but not on others. Finally those who show a more developed reasoning about the variation of what the Internet can offer can be found in category 3.

The levels of reliability have been related to the models described above. There seems to be an interplay between the different category systems in that those who describe the Internet as a surrogate are those who have not reflected upon its reliability. Those who describe the Internet as a network are those who show a reflected reasoning about its reliability. It can also be seen that the overlap is not total, which suggests that development within the two domains can take different routes.

Compared with adults (Barry & Schamber, 1995), these students on the whole have the same demands for good and relevant information. It should be detailed enough, up-to-date and easy to access. The difference is that while adults in other studies have shown that they appreciate objectivity, these students say that subjectivity and the fact that you can get opinions from several people is a good thing. In my material three categories can be seen for what can be considered as good and bad web pages respectively. The first category is about liking and disliking. In the second category utility is added and the students also talk about interactivity and downloading. In the third category the students also mention the great variety of pages on the Internet and that it is a question of choosing. A good page has a meaning for the searcher.

The students' criteria for choosing good web pages and not choosing bad web pages were related to their models of the Internet and what they say about its reliability (see table 6). In the class there is interplay between these three aspects. The students who choose a web page from a like-dislike perspective are to a great extent the ones who describe the Internet as a surrogate and do not reflect upon its reliability. Those who describe utility as a criterion for good web pages are often the ones who describe the Internet as a metaphor and who have started to reflect on the Internet's reliability within certain domains. Finally there are those who say that what is a good page for one person is not necessarily good for another. These students often use more advanced descriptions of the Internet and show a greater awareness of the diversity of web pages and the fact that you can be fooled. The overlap is not total, which suggests that there is no underlying general talent for reflection but instead a learning, which opens up possibilities for new learning and development in closely related areas.

**Tabell 1** - *Interplay between choosing web pages, the reliability of the Internet and models of the Internet.*

| **Choosing ⇨ ⇩ Reliability** | **A** | **B** | **C** |
|---|---|---|---|
| **1.** | S. Angelica<br>S. Helena<br>S. Nina<br>***M.** Emil*<br>***M.** Johanna* | ***M.** Erika*<br>***M.** Jennie* | |
| **2.** | ***M.** Jessica* | S. Anders<br>S. Lina<br>***M.** Frida*<br>***M.** Johan*<br>***M.** Louise*<br>**N. Anton**<br>**N. Hanna**<br>**N. Jennifer** | <br><br><br><br><br><br>**N. Lukas**<br>**N. Matilda** |
| 3. | | ***M.** Annica*<br>***M.** Lars*<br>***M.** Rasmus*<br>**N. Alma**<br>**N. Simon** | **N. Andreas**<br>**N. Kalle**<br>**N. Nadja**<br>**N. Nelly**<br>**N. Tobias** |

*The three categories of what the students say about choosing web pages (A, B, C) in relation to the three levels of reliability (1, 2, 3). As a third aspect, the students' ways of describing the Internet system are marked with S (surrogate), M (metaphor) or N (network).*

It is possible to see the three category systems as describing a hand-in-hand development, where one aspect has an impact on the other. In the same way it seems that reflection and meaning are closely related in the development of the students. A main condition is that all aspects are trained. In that training the role of the teacher is important.

The computer is a central artifact in Internet searches. Other artifacts or tools are knowledge about different ways of searching, search engine functions and language. These tools are practical. The students talk to an equal extent about knowledge that gives meaning, which is also a tool to use when searching on the Internet. Having a goal, an interest, knowledge about what you are searching for and knowledge about the sources are such tools. The whole *process of Internet searching* can also be seen as *one* tool, a useful tool in lifelong learning. The practical tools can be used to follow the description of a path. If knowledge that gives meaning is included, the tool can also be used for trail making[1], which opens up quite different possibilities.

## *Reflections on the method and the results*

How is it possible to get a deeper insight in other people's thinking? It entails certain difficulties and is presumably not totally possible, but in this thesis I have tried to describe something which could be said to be close to the students'

[1] A metaphor of Nemirowsky and Monk (2000)

thinking. What has been obtainable has only been external signs for what could be in their minds. Language has of course a strong connection with thought, but lack of language can complicate the mediation. Besides, my material shows that some students do not have a fully developed language about the technology in use. As a complement, observations have been of great value, and the students also drew pictures of the Internet structure. Through these pictures details were pointed out which would have been difficult to understand otherwise.

Despite the complementary functions of observations and interviews there was an imbalance between these two methods in the final analysis material. The interviews formed a greater part of the analysis than was originally intended. It was in the interviews that the students had time to express themselves without being interrupted. You get involved when it is fun and you are interested. The students pointed that out very clearly. Carrying out a study where the students do a task imposed by the teacher can be a difficult matter if the aim is to evaluate their interest and involvement in the search task. The interviews made it possible to *discuss* interest and involvement with the students. This was a result of the way the study developed, depending on the circumstances. From a flexibility perspective it is a strength to be able to deviate from a prearranged plan.

As I am a teacher myself, the suitability of doing research within my own culture can be questioned. Since I have also worked with this specific age group, I am colored by the specific Swedish school culture. It varies from school to school, but in most respects I recognize the culture when I go to a new school. I have worked in many different schools and seen different cultures. This has given me an insight into how teachers in Sweden discuss and reason. The disadvantage is that you can become blind to what you are used to and find it difficult to see new aspects. An advantage is that it is easier to gain understanding for my research among teachers. Kullberg (1996) says that classroom research carried out by teachers who have been trained as researchers is very valuable. First of all, she writes, it is important that teachers in the classroom act as researchers, but also that former teachers who have become researchers support this kind of research, just because they are familiar with the school culture. What Kullberg re-commends is ethnographic research, which, according to her, includes an open-minded way of looking at learning.

In this study, it has not been my intention to focus on the teachers who belong to the kind of school culture I know the best, but to understand the culture of the students, a culture which I am not part of.

The study aims to show what young students do and how they reflect on Internet searching when they are given the opportunity to work with it for a long period and with guidance. This has led to my results looking a bit different than results from other studies in this field where researchers have gone in and carried out a project or just tested the students' skills. Therefore I want to accentuate some of my results. The first is that the students say that hypertext is a logical structure. The second is the students' reflections on the tools needed to search for and find the information they need. Both these results lead to a reflection on the different cultures of children and adults in our society. The third is the observation of the variation in the boys' and the girls' talk about computers and technology in relation to what they can do with it, and the fourth is the interplay between the students' reflections on the Internet system and its reliability. The two latter results are discussed from the point of view of boys' and girls' different circumstances, and what existing cultural conceptions can lead to in our continued acting and thinking.

The students' attitude to computers is uncomplicated. Everyone is positive to the use of computers at school and no one questions their use. In this respect they fit well into Tapscott's (1997) Net Generation. Children today do not regard computer technology or the Internet as something strange, just as the telephone is not strange to adult people of today. To adults, on the other hand, computer technology may seem complicated, and it can be difficult for teachers to find a natural way of using it in an already established way of teaching. The computer visionary Alan Kay is quoted as saying that technology is only technology to those who were born before it was invented.

Hypertext is part of the computer culture. The students in the study think hypertext is logical and easy to handle. Their attitude to hypertext is as uncomplicated as their attitude to computers. Maybe it is possible to draw a parallel between what is written above and the fact that the children of today have grown up with the hypertext system. Not only on the Internet, but also on TV you push a button and jump from one thing to another. Children in Sweden today have not seen much else. Studies which have reported stress in connection with hypertext base their statements on research published between 1985 and 1996 and that is now some years ago (e. g. Axelsson, 1998; Wallace & Kupperman, 1997). It could be that today's children have a different attitude to hypertext and are not stressed by the same things as we adults are.

Compared with other studies the students in this study seem wiser and more reflective. An example of this is that the students reflect on criticism of the sources and also on subjectivity on the Net (compare e. g. Large & Beheshti, 2000; Wallace & Kupperman, 1997). Some students say that they have learned this from someone, e.g. the teacher or a parent. If you have never had the opportunity to learn something, it is of course very difficult to develop knowledge about it. Most of the students emphasize that they think or think they know that there is more to learn than they know themselves. Some say they are beginners and have not had time to learn very much, but what they have had the opportunity to learn they have a good grasp of, even better than adults that have not had the same opportunities. Bilal (2000) poses that children's cognitive abilities are limited, and this is the reason why they are not able to handle the Internet. According to the students' sayings in the study, I would rather advocate another perspective, which says that children usually do not have the possibilities to learn how to express their reflections on this matter.

Mead (1970) describes three types of cultures in the child-adult relationship.

- a *post-figurative* culture – where children learn from older people.
- a *co-figurative* culture – where both children and adults learn from people of the same age.
- a *pre-figurative* culture – where adults learn from children.

In the school world the post-figurative culture has dominated. The teacher has known what the children should learn at school. Parallel with this post-figurative culture a co-figurative culture has existed for a long time in our society, and it is mainly within a co-figurative culture that conflicts between generations have arisen. As early as 1970 Mead saw that technology would cause a transition to a pre-figurative society, partly because young people looked upon technology as natural.

As has been discussed earlier, many people have noticed that some students know more about computers than adults do. This means that the teacher is no longer the person who knows best in the class and has to give up control in some respects. When discussing the fact that the introduction of computers at school will change the way of working, it is perhaps not the computer itself and the possibility of finding whatever knowledge you want via the Internet, which causes the change. It may be the fact that children usually have a more relaxed attitude to technology, which increases the chances of transition to a pre-figurative culture. A totally pre-figurative culture is hardly desirable. The optimum should instead be a balance between the three cultures described by Mead (1970). Teachers have to give up total control and there will be an interchange between teachers and students. In such a way the transition to a more guiding role for the teacher is facilitated, and this is also what the Swedish National Curriculum (Utbildningsdepartementet, 1994; 1997; 1999) says is desirable.

In a socio-cultural perspective the past is important for understanding how the present culture has developed. In connection with both children and technology the future is focused on. I do my research in the present. I would like to stress that what I have shown is a part of the present, which always involves both the past and the future. When teaching children and also doing research on children, it is very easy to have eyes for nothing but what is to come, since children develop so rapidly that it is easy to see changes, which is exciting. Johan (one of the students in the study) has said several times when I have met him after the study that he thinks it is silly to say that children are the future. He says that children are the present "because we are just as important now".

Johan's statement points to an existing idea, which is based on a post-figurative culture. Children should learn from adults so that they can take care of the existing society in the future. Johansson (2000) compares this with gender construction and discusses childhood as a cultural construction where the adult is the norm and the child the deviation. It is in a perspective like this that children are looked upon as the future; they are not yet ready. Saying instead like Johan – that children are the present - points to a different culture, which could be a pre-figurative culture, where everyone regardless of age has the same value, where everyone gives and takes.

My results point in a different direction than other researchers' findings concerning boys and girls. This can be a result of the time we are living in. Tapscott (1997) points out that differences between boys and girls will diminish. In most cases that was what I saw, but there were also differences. The boys in the study verbalize a greater knowledge of computers and the Internet than the girls do. This seems to interplay with a greater reflection upon the reliability of the Internet and how they talk about good and bad web pages. It is not possible to observe that the boys make better use of the computer. What instead could be the case is that boys are encouraged to learn the vocabulary because it is important to men and boys in our society to show that they know a lot and have control so that they can take a higher position in the hierarchy (Tannen, 1995).

Having a language also means that it is easier to develop thinking, since you can communicate your thoughts and get feedback. The girls' lack of language decreases their ability to communicate verbally. Instead they are obliged to resort to exchanging ideas in practice, i.e. in front of the computer.

What does it mean that the boys show their knowledge of technology verbally more than the girls do? It could mean that adults pay more attention to the boys' knowledge and the boys get more opportunities to practice their

knowledge of the technology in the classroom. In the study this was shown by the boys taking more of the computer time at school. This could lead to the boys getting more opportunities to develop their knowledge, while the girls are pushed into the background. The gender roles will be preserved.

From the case study it is obvious that critical reasoning is not a general talent. Students who are critical in other connections are evidently not always critical in connection with the Internet. This supports the idea that knowledge is contextual and that it is important to discuss and train critical scrutiny in connection with Internet searching. What can it mean that critical reflection interplays with the students' ideas about the Internet? If boys are allowed to take more with regard to technology because we *think* they have a greater interest in technology than girls have, it could be that the boys more easily get an advantage in developing reasoning about the reliability of the Internet. Will girls lag behind in that development? I am aware that I am carrying this to an extreme, but it is important to be observant of the problems that may arise in the future, so that this effect can be counteracted.

What is the hen and what is the egg is not always easy to know, and sometimes it has no great relevance. Different aspects work in a dialectic relationship, and the aspects mentioned above develop in interaction with each other. A great deal of the existing research within this field has not shown any cause-effect relationship (e. g. Pedersen, 1998). But in the light of the studies I use as comparison material, I would like to stress the importance and possibilities of the student-active way of working. By starting from the students' questions and building on their interests and their own responsibility, the teacher has created an environment where it is possible for them to develop their thinking by reflecting on the world together and individually and through this create meaning. The computer is a part of this environment, and the computer itself cannot be seen as something that in itself creates learning.

Research on the Internet's role in schoolwork is for obvious reasons relatively new. Because of this there are still many aspects that are unexplored, and there are still many angles of approach to be studied. Studies with a user's perspective are even more rare, and therefore it is very important to follow up studies of the type I have presented. What students understand and how they reason about Internet use at school are very important areas of research. However, all angles of approach are important to get a picture with as many nuances as possible.

Besides being a study within the educational sciences, this study also has some roots in library and information science. The exchange with researchers with other traditions has been very stimulating. As a lone researcher it is difficult to see phenomena from different perspectives, even if my ambition has been to do so. Multidisciplinary studies are therefore desirable in order to broaden and deepen knowledge about Internet searching and Internet use at school. Other relevant disciplines are for example information technology and psychology.

## *Consequences for teaching in practice*

The explicit aim of the study has not been to describe how to teach, but in a study concerning students and their learning at school it is unavoidable to touch upon the consequences for the teaching practice this can lead to. From my conclusions the consequence will be that knowledge is trained within a context. Regarding Internet searching, the students need to be guided in all the ar-

eas of knowledge that are important in order to be able to search well. There needs to be emphasis on both practical knowledge and knowledge that helps to give meaning to searching. It is not least important for the teacher to help the students to find an interest and to set up a goal. It is reasonable that teachers also choose a goal for their teaching: do they want students who can find information effectively in a jungle of ways of searching or do they want students who have the capacity to scrutinize the information found and create a meaning? Or do they want both? When this study is compared with studies run as projects in classes not usually working with evaluation and comparison of sources (e. g. Bilal, 2000; Wallace & Kupperman, 1997), it becomes obvious that the whole attitude to teaching is important.

Setting up your own goals requires independence of the group (e. g. Raths et al., 1979). Posing your own questions and finding different possible answers also requires independence to stand up for the answer you choose. An open classroom climate, where it is allowed to think whatever you want and to express it, is necessary. It must be allowed to question other people's opinions, even the teacher's. But questioning also means motivating and saying why you are questioning. Everyone needs to develop their sensitivity to the opinions and feelings of others. Learning to take responsibility in the group and to follow established rules, but also to take responsibility for your own actions within these frameworks - this is work that constantly needs to be kept alive in the classroom.

Working with evaluation exercises to strengthen the student's own identity is a good thing, but it is not enough in order to find different answers. The students also have to have access to different sources. If there is only the textbook, there is not much to compare with. It will be difficult to fulfill the goals of the National Curriculum (Utbildningsdepartementet, 1994), which says that the students have to learn to see the consequences of different alternatives. Parallel with this, as a teacher you are obliged to work with the values that the Swedish school system is based on.

What Colnerud (1999) saw, which is described in an earlier chapter, does not point to the computer as a facilitator when teachers change from the role of telling students what to do to guiding them. She interprets this as being due to the fact that the teachers in her study do not have a functional language about computers, but have to *show* the students what to do. My conclusion from this is that if teachers are going to work as guides, it is necessary not only to be able to handle the tools, but also to be able to communicate verbally about the practice. This is a parallel to what is written above about girls' lack of language about computers and the Internet, and what this can lead to. As a guide you do not have to know everything. But as I interpret the consequences of Colnerud's and my results, you have to be so sure about handling the tools and the language in connection with this that you can describe what the student has to do. There may be a point in showing, just as there may be a point in letting the students learn by doing things themselves without anyone taking over their work. This does not mean that teachers have to be masters of computers, but they have to be able to communicate what they know.

In a foreseeable future there will certainly be students who know more than the teacher about the technology. As a teacher you then have the possibility to learn from those students. The teacher has a responsibility to learn more about what the activities at school revolve round. The teacher also has the responsibility to help students develop a language about this practice. If the

teacher does not know anything about computers and is dependent on computer-interested students to run this part of the work, critical scrutiny concerning computer work will be difficult. The teacher will then end up in the same situation as many students today, having to work with things they have no previous knowledge of or interest in.

## *Concluding comments*

The aim of the study is to understand what young students (aged 9 - 11) do and how they reflect on Internet searching at school, when they are given the opportunity to work with it for a long period and with guidance. I have tried to call attention to the students' views. Since the students themselves were very positive to the Internet and saw the possibilities it brought to the classroom work, it has been important to me also to call attention to this and to the students' possibilities to develop skills and understanding for information searching.

When I started this study I never really doubted that the students would manage to search for information on the Internet. The question was *how* they did it. The extension to this would be, I hoped, that my results would increase the understanding for children's Internet searches and lead to developing ways of approaching this question at school. With my work, I want to give inspiration to teachers to use the Internet as a natural tool at school with younger students too. I have studied 10-year-olds, but I know of even younger students using the Internet as an information source with good results.

*Not* letting the students search for information on the Internet is often an action with the best of intentions. In this thesis I have written about adults' misgivings about children going out on the Internet. As a last comment I want to draw a parallel between this and literature. Matt, the father of Ronia, the robber's daughter, is concerned about his daughter's welfare and describes different things she has to beware of.

> Matt had said she was to watch out not to fall in the river, so she hopped, skipped, and jumped over the slippery stones along the river bank, where the river rushed most fiercely. She couldn't go walking in the forest and just watch out that she didn't fall in the river. To do any good, she must be by the waterfalls and nowhere else. (pp. 20-21, Lindgren, 1982)[2]

[2] In this peculiar translation Ronia is called Kirsty

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