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ABSTRACT

Finland is a country of great expectations on literacy and literacy education. High expectations and demands have, however, a darker side. High expectations of society, parents, and teachers may have an effect on the students' self-esteem. The economic recession in the early 1990s strongly accelerated the change in literacy demands and expectations. The prosperity of Finland will be crucially dependent on its capacity to adopt new information technology but in the meantime also to develop and apply it critically on the basis of its own national circumstances. While new media and new modes of communication arise, the old forms do not generally vanish, but rather expand and become richer. The literacy expectations (old and new) can be defined according to Jurgen Habermas's theory on knowledge interests into three quality levels--technical, practical, and emancipatory. The new expectations and demands on literacy in the information society are still associated with many tensions, possibilities, and threats to be discussed. Many problems still to be solved when developing new multicultural literacy are: contradictions between national cultures and the prevalence of scientific-technical globalism; national styles of communication; use of national languages in global networks and telecommunication; interaction of humanistic and individualistic values with the new communication and information technology; social relations when people would rather discuss through the machine than face-to-face; who has the power in the new media; and the issue of values and morals. (Contains 17 references and two tables and three figures of data.) (RS)

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# HIGH EXPECTATIONS - HIGH ACHIEVEMENT ON LITERACY "WHAT SHALL WE DO IN THIS HANGMAN'S HOUR"

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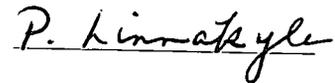
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| Finland-The Country of High Expectations on Literacy | High Expectations-Low Self-Esteem | Economic Recession-An Accelerator of the Change in Literacy | Literacy Expectations in the Technologically Enriched Environment | Something Old, Something New, and Something Blue | References |

*"What shall I do in this hangman's hour, what shall I do? Why was I born? Why didn't I sooner open my eyes as a split-lipped young hare under that spruce yonder? Or as a squirrel, who chatters on the fork of yon pine with his tail bolt upright? And he needn't learn to read. He needn't know how to read! Each was given his lot, and " a sword to match". And lamenting and sorrow won't help, but work and action will. Onward now, brother!"*  
Aleksis Kivi, Seven Brothers

## FINLAND-THE COUNTRY OF HIGH EXPECTATIONS ON LITERACY

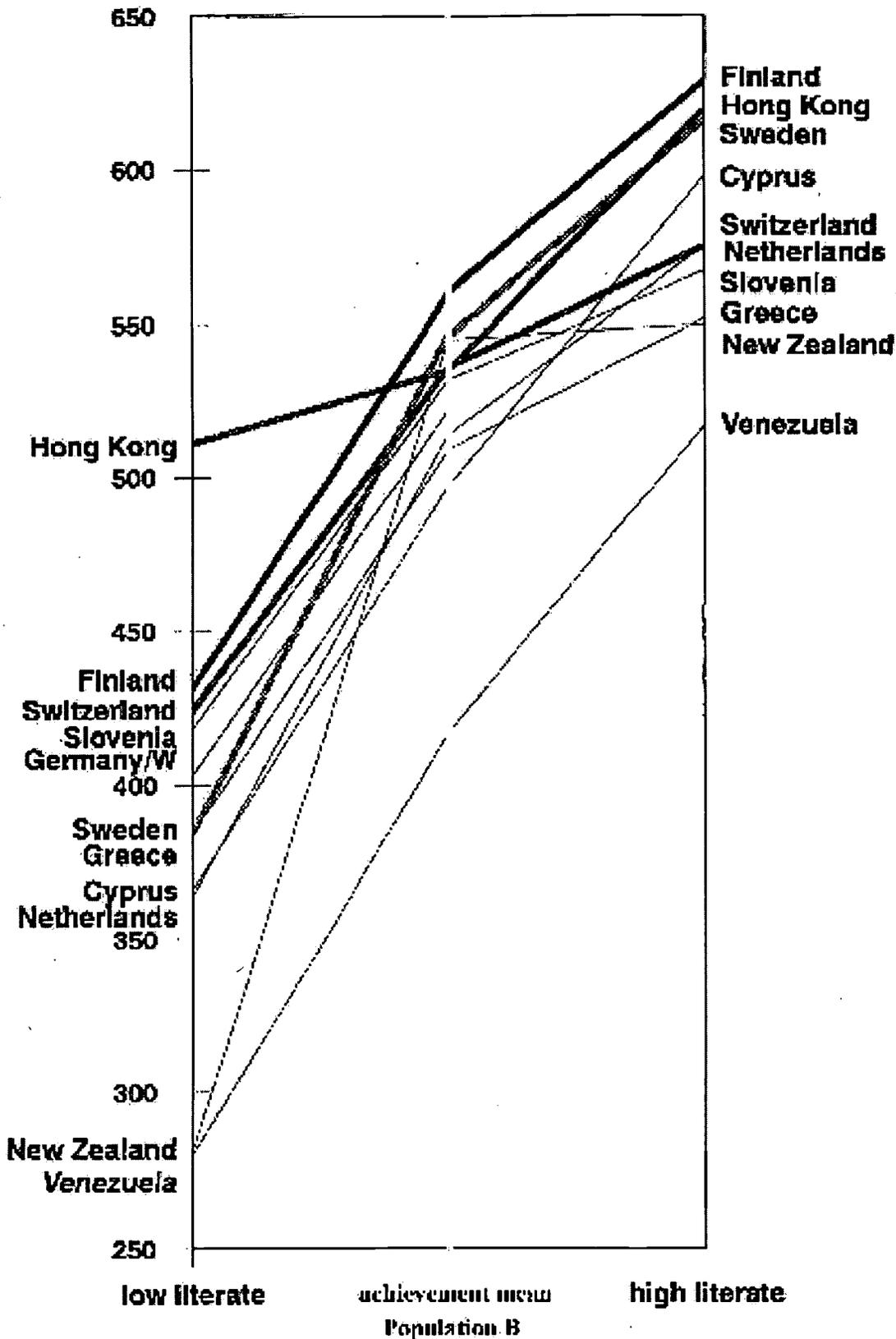
Finland is a country of great expectations on literacy and literacy education. Parents have great expectations on their children's literacy; so that almost half of the children (40-50 %) are able to read already when they begin school. The children themselves are eager to learn to read, not so much to please their parents, their future teachers or for noble academic or intrinsic motivation, but to be able and free to watch television programs of their own choice, the reason being that on Finnish television most interesting programs come with subtitles (Linnakylä 1993a).

The schools and the teachers have great expectations on literacy education as well; so if the other half of the children (50-60%) are not able to read by Christmas, the teachers often consider themselves having failed in their reading instruction.

Furthermore, the Finnish society as a whole has great expectations on literacy achievement. This became evident in 1991 in an exercise conducted in connection with the IEA Reading Literacy Study. The purpose of this exercise was to establish expected literacy levels for 14-year-old students in eleven countries participating in the IEA survey. A panel of about 25 adult judges representing further education and working life was selected in each country. This panel rated each item in the international reading test and estimated the percentage of 14-year-olds they thought should be able to respond each item correctly if they were to be considered "barely literate" in their country. This meant that they could be expected to cope with everyday life, in manual work and basic community services (Atash 1992; Elley & Schleicher 1994).

The judges also made a second estimate to generate the percentage of students considered "high-level literate" which meant that they could be expected to function actively in the community, to develop themselves professionally and to be able to enter further education through understanding, analyzing, and drawing conclusions on texts as well as using complex documents. The percentages were summed across the items in each domain and averaged to obtain expected mean achievement levels, following the method of Angoff (1971). The whole exercise was guided by Dr. Nadir Atash of Westat, USA (Atash 1992).

**PANEL RATING (11 COUNTRIES)**



**Figure 1**

FIGURE 1. Comparing the expected and achieved literacy levels in the IEA Study of Reading Literacy (Schleicher & Elley 1994).

The results of the panel ratings revealed that there was considerable variation between countries in the literacy expectations (Fig. 1). Highest demands for basic literacy level were set up in Hong Kong, Finland, and Switzerland. Hong Kong expected highest basic literacy levels in all domains: in narrative as well as expository or document reading. Finland had the second highest expectation levels in expository and document reading, Switzerland in narratives.

At the higher level literacy - functional and critical literacy - the highest demands were made in Finland, Hong Kong, and Sweden. In the different domains Finland expected extremely high level in document and expository reading.

The overall national expectation pattern shows that the demands mirrored the actual achievement levels quite well. The average score of the country sits quite nicely between the overall expected levels of basic literacy and high-level literacy as seen in Figure 1. The comparison of the expected and achieved average level are quite parallel. The highest achievement level was usually attained in the countries where the expectations were also the highest.

The literacy levels expected in different domains were almost equally high. Some interesting differences, however, appeared. For example, Greece - the nation of great narratives - expected that students' narrative achievement was higher than achievement in other domains, and in Greece as well as in Cyprus, this was also the case in test scores. By contrast, Finland, Hong Kong and New Zealand expected more in the document literacy and it is in this area that students' achievement in these countries were also the highest (Elley & Schleicher 1994).

From the national perspective, it was surprising that the highest expected level was judged for document literacy because document reading has not been explicitly instructed at school at all (Linnakylä 1993b). Finnish students, however, scored in document reading extremely high - highest in the participating countries of the whole study (30 countries). The textbooks and the other material used in schools include a lot of document reading and the students themselves found the document tests the most challenging and interesting, but the most demanding as well.

Maybe the high expectations on document literacy in many countries already in 1991 were anticipating becoming change in literacy demands toward the visual and multimedia literacy.

## HIGH EXPECTATIONS-LOW SELF-ESTEEM

High expectations and demands have, however, a darker side too. *High expectations of society, parents and teachers may have an effect on the students' self-esteem.* That could be seen in the International Reading Literacy Study where students' self-assessment showed that very few Finnish students (only 10 %) expected themselves to be "very good" readers, although their self-confidence, for example among the 9-year old students, could have been well justified on the basis of the international standard (see Fig 2).

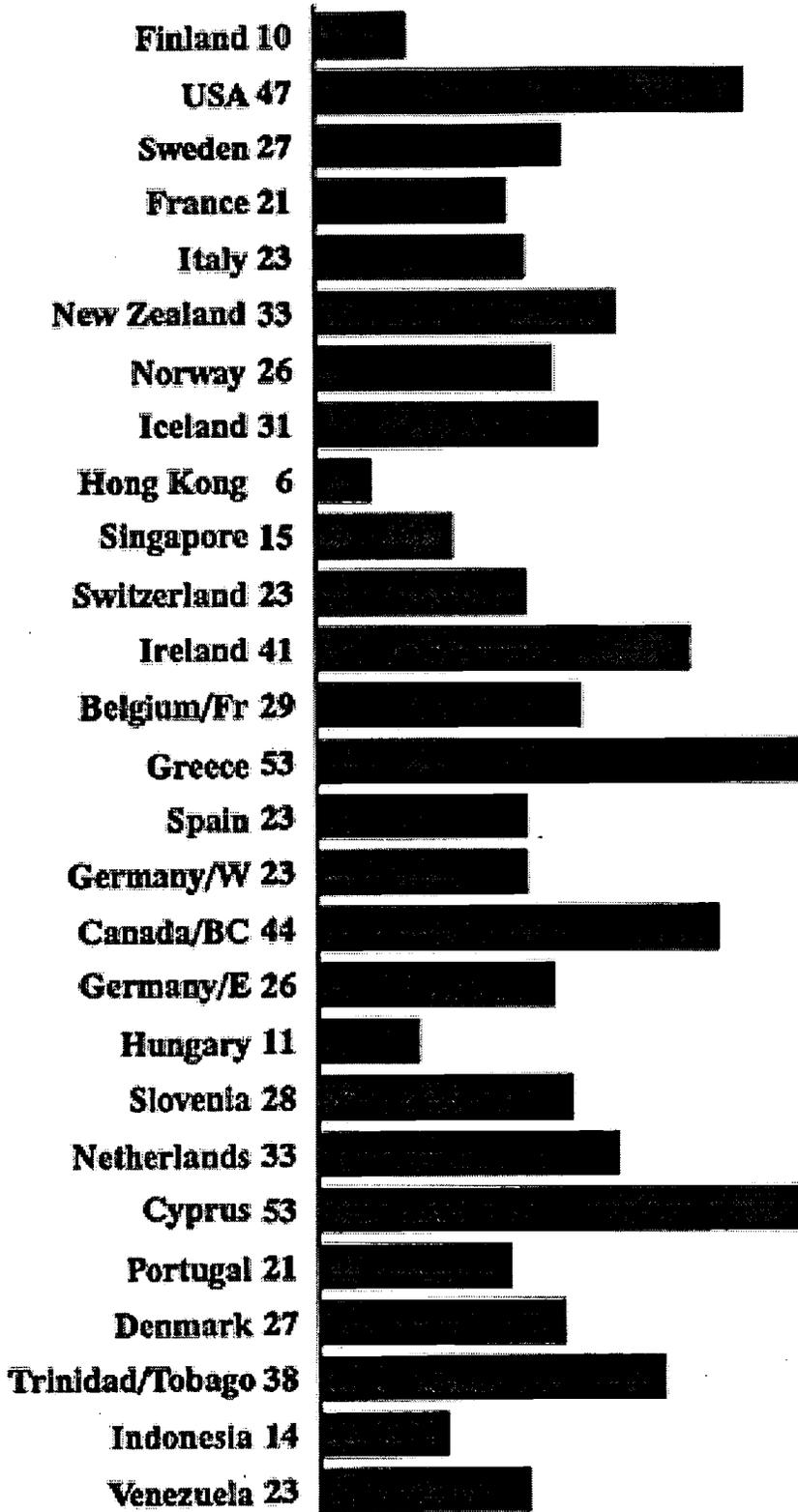


Figure 2

FIGURE 2. Students' self- assessment in the IEA Study of Reading Literacy (Elley 1992).

It is, of course, a difficult task for students to view their ability in a wider perspective than the classroom, but the situation was the same in all the other countries as well. Even though the discrepancy between achievement and self-perception on an international scale may reflect cultural norms of modesty (Elley, 1992), it may also be indicative of the high demands and expectations Finnish teachers, parents, and society set for the students' literacy.

The same trend could still be seen in 1995 in our national assessment where students rated themselves again. Although the literacy level has remained the same as in 1991, the students rated themselves even lower than in 1991. Now, only 7% of the 14-year-old students rated themselves "very good" in reading; and only 4% "very good" in writing (Linnakylä & Kankaanranta 1996).

All in all, it seems that we have educated high-achieving students with quite a low self-esteem, students who do not see themselves confident as literacy learners. This is particularly unfortunate in a situation where students should be well-prepared and motivated for life-long learning and to seize new spheres of literacy.

## **ECONOMIC RECESSION - AN ACCELERATOR OF THE CHANGE IN LITERACY**

In most countries, it is a widely accepted fact that literacy is a valuable human right, a source of individual dignity, a prerequisite for learning in the various disciplines and further education, and a key qualification needed in many occupations and in active citizenship. In many studies it has been argued that there is a strong relationship between literacy investment and economic growth as well as for a strong relationship between literacy level and economic, cultural and social development (Levine 1985).

Even though Finland had an extremely high literacy level in the beginning of the 1990s, we faced

- economic recession when Russian trade broke down and our industry had to be restructured
- huge unemployment (20%) caused by the closing down of factories and branches of industry
- serious social problems caused by unemployment,
- individual indignity when people with high value on work felt utterly useless without a job and without any hope for a better future.

Suddenly, many people also experienced themselves in a way alliterate for the new era, the post-industrial information society, where the expectations for occupational and literacy qualifications seemed different. That was our hangman's hour, again. The humble and obedient rule- and task-specific worker and the lonesome, steady plodder and the silent, reactive reader was not wanted any more. There was a need for a self-confident, market-minded, socially skilled team worker who knows his/her strengths and potentials, who can boldly interpret the new open and complex situations and whose literacy skills extend from books and written texts to computers, to multimedia programs, to telecommunication and global networks.

What the recession did, it strongly accelerated the change in our literacy demands and expectations.

## **LITERACY EXPECTATIONS IN THE TECHNOLOGICALLY ENRICHED ENVIRONMENT**

...t adoption of new information technology has challenged the educational policy makers, literacy researchers and

teachers world-wide to study literacy and literacy learning in technologically enriched contexts, schools, work and private lives.

The prosperity of Finland will be crucially dependent on our capacity to adopt new information technology but in the mean time also to develop and apply it critically on the basis of our own national circumstances. In Finland, instruction in information technology is of a high standard. The Finnish infrastructure of computer systems and telecommunication networks is today probably one of the most advanced in the world. Finns are active users of communication networks and particularly mobile phones. Inputs into information technology will diversify our industrial structure and reinforce business activities based on know-how and refining of information (Information Research Programme 1995).

Multimedia and interactive communication systems are changing people's means of communicating, their understanding of themselves and one another, as well as their perception of reality. The human being is a cognitive information processor but also a social and emotional being. Securing the satisfaction of the latter needs is also necessary in an information society.

For those able to exploit new technology, the information society may be a liberating experience, which opens the flow of information, widens individual choice, releases new creativity and commercial energies, offers cultural enrichment and brings greater flexibility to the management of working and leisure time (Erraut 1991).

Who then are those able to exploit e.g. the networks in Finland today? The Second Internet Study conducted in February 1996 (Järvinen 1996) showed that the users were primarily men (87%) and novice users (25% under six months; 50% under one year, 25% more than 2 and a half years). They lived in the richest, Southern, part of Finland. The average age of the users was 31 years. Most of them were either high- or middle-income people or students. Only 2 % of the users were unemployed and only half a percent were retired. The average time spent in the net was 19 h per week. Usually the network was used at home (45%) or at work (35%), but also in schools (18%), still quite rarely in libraries (1%). The most popular program among the network users was the American Netscape (world wide web multimedia version), which was favored by 85% of the users. The biggest problems the users had experienced were difficulties in finding the information they needed and the slow pace of the work.

When the traditional book reading has become a part of female culture, the computer literacy has clearly become a part of male culture. Women are active users of e-mail and they use computers at work, but at home only men seem to have time to communicate through networks. It is only recently that the "Virtual sisterhood net" has been established also in Finland. This kind of net was needed, because the female users experienced to be ignored in net discussions. Those women, however, who have really found the net world, praise the non-linear and non-hierarchical structure of the hypertexts as well as the esthetic and sensual enjoyment that they had experienced in new modes of reading and writing (Krohn 1996).

Among Finnish children those who use computers both at school and in their leisure time are also mainly boys as seen in the following figure (Fig. 3) which is based on the national survey in spring 1995

**COMPUTERS**  
**14-years old users outside the school**

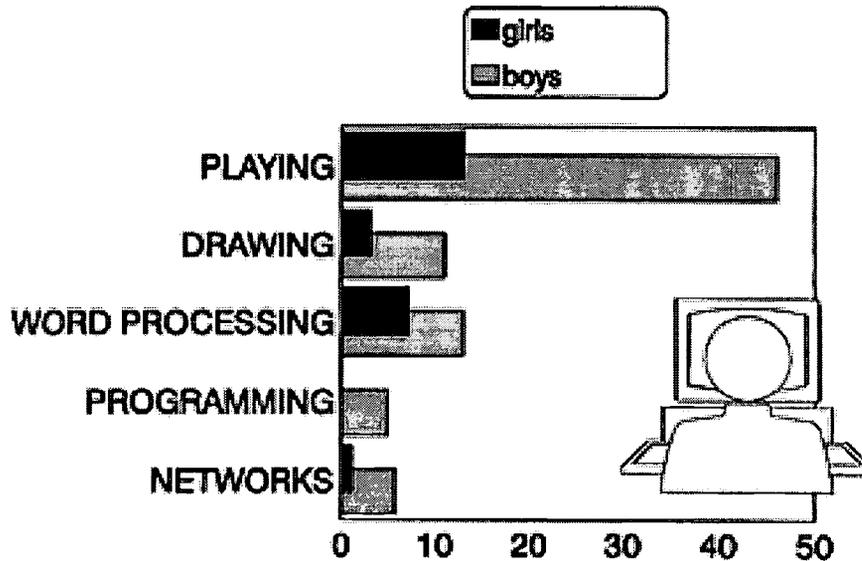


FIGURE 3. Computer usage of Finnish 14-year-olds in their leisure time in 1995

It is also interesting to look at the relationship between the traditional literacy and the computer usage. The results (based in the analysis of variance) in the National assessment in 1995 showed that word processing had the strongest positive relationship with both reading achievement and various reading activities. Also programming had strong connections to achievement, but those students, who were all boys, were not active readers. Particularly worth noticing was the finding that net surfing was not connected with high reading achievement but only with active magazine reading (Linnakylä & Kankaanranta 1996).

Table 1. The relationship between the traditional literacy and the computer usage among Finnish 14-year old students in 1995

	Reading activities			Reading achievement
	books	newspapers	magazines	
playing		+*	+*	
drawing	+***		+***	+*
word processing	+***	+**	+***	+***
programming		-*	-***	+***
networks			+***	
		*** = p <.001		
+ = positive relationship		** = p <.01		
- = negative relationship		* = p <.05		

Access to information technology should, however, be a basic right for every citizen, not the prerogative of men and boys or the younger generation. networks should be available in every school, library, perhaps also in pubs and cafes. Anyone who does not know how to use a computer seem to be placed in a position of inferiority and anyone who currently has little access to the new technologies will become even further disadvantaged. The gap is likely to grow wider between the most privileged and those who are less supported. This surely is the case also with the nations.

Equality of educational opportunities and literacy skills related to the information society, its communication networks and its technologies is essential from the democratic point of view, particularly at a local but also at a national level. Those without such knowledge will be denied influence over the future developments of a society increasingly affected by technology.

Therefore, we have to make sure that our children have a sufficient understanding of the technologies that lie in the heart of the information society. It means an understanding of the fundamental principles on how information technology devices work, but particularly children should be helped to recognize that information technology increasingly fulfills the function of a fundamental discipline necessary for other disciplines and life spheres.

On the other hand, everybody should learn to understand that information is not yet knowledge, knowledge is not yet understanding, understanding is not critical judgment, and judgment is not yet wisdom (see Gardner 1996). If we have no trouble in gaining access to the limitless amounts of information, it will only make it more difficult to decide what is worth considering and how to use the information productively and wisely.

## SOMETHING OLD, SOMETHING NEW, AND SOMETHING BLUE

While new media and new modes of communication arise, the old do not generally vanish, but rather expand and become richer. The literacy expectations - old and new - can be defined according to Jurgen Habermas's theory on knowledge interests into three different quality levels (Table 2).

Table 2. Quality of literacy in the frame of Habermas (Linnakylä 1992)

Knowledge interest	Quality of literacy	Characteristics
Technical	Basic literacy	technical, instrumental
Practical	Functional literacy	cultural, social, interactive
Emancipatory	Critical literacy	dynamic, liberating, valued

The new as well as the traditional literacy can be seen a) as a *technical* and *instrumental* literacy, which means basic skills in reading word and texts and in using most common computer programs like e-mail and networks in communicating information and b) as a *functional* literacy, which emphasizes the use of literacy as a means of social and cultural understanding and communicating also by means of technologically mediated programs and c) as a *critical*, *emancipatory*, and *liberating* literacy which accentuates personal interpretation and critical evaluation of knowledge and the various means to mediate it in order to master one's own life and to develop the surrounding world (cf. Habermas 1973; Linnakylä 1992; Fixed points in media space 1996).

School education from the primary level up holds the key to enabling everybody to get to grips with the traditional and new literacy as well. To avoid the polarization of the population, everyone must have a chance to learn at least technical basic literacy as well as functional literacy also in the technologically enriched environment. However, the information society should be brave enough to educate its citizens to the critical, emancipatory, and liberating literacy and mastery one's own life.

But education itself will have to change to absorb the new ways of making the most of interactivity and relating the information to the previous knowledge, experience and emotions, judging it critically and discussing values and value implications of the knowledge. It has also been suggested that the introduction of new information and communication technology into schools can be the catalyst for educational change in general (Nardi 1996).

The new expectations and demands on literacy in the information society are still associated with many tensions, possibilities and threats to be discussed, and many problems to be solved when we are developing new multicultural literacy (cf. Fixed points in media space 1996):

\* There is a contradiction between the traditional, national cultures and cultural diversity and the prevalence of the scientific-technological globalism with standardization and cultural uniformity. It is also possible that the global information and communication media increase the mutual understanding and appreciation of different cultures, including the smallest - not only the American, pan-European or Japanese.

\* The issue of national style to communicate is problematic. Finns, for instance, have always appreciated silence, solitude and life without haste, and depreciated superficial small talk or open argumentation with strangers. Do we all have to change our national styles of communication into a rapid, accelerated and non-linearly associative expression? And who sets the rules for communication in world-wide webs: the market, the producer, or the users? Or perhaps the new media are agents for enhancing and enriching our communication styles? At least, we Finns seem to be very active and talkative in world-wide-web and mobile phone conversations.

\* The use of the national language in global networks and telecommunication is a central issue. Do the national languages disappear? Will a pidgin net-language, or net-English be born? What will happen to the national publishing, literature and newspapers, when already today we are able to read our national classics and the Bible in an electronic form with thousands of associative links to break the coherent narration? What will happen to the written language form? Are we going back to the oracy or pictorial language?

\* How can the humanistic and individualistic values encounter the new communication and information technology? Will the humanistic tradition with its high esteem on individual experience, emotions and growth be forgotten because of all the technological innovations and effectiveness?

\* What will happen to the social relations when people rather discuss through the machine than face-to-face? For

example, on a Finnish train half of the passengers are talking on their cellular phones, but very few to each others. On the other hand, working with computers has totally changed the learning environments in schools. While the Finnish schools used to be well-disciplined classrooms, where the teacher knew the text book facts and skills to be taught to every student; today our schools are becoming open, authentic and collaborative learning environments.

\* We speak about the information era and knowledge highways. Is it really a question of information and knowledge or should we rather speak about playing, games, and entertainment? Or is it possible that totally new behavior genres are appearing? Is it possible that knowledge and enjoyment could go hand in hand and learning could be fun? Perhaps a new homo ludens is born.

\* Who has the power in the new media? Is there going to be teledemocracy? Finns seem to believe that new technologies open the gates to citizens to participate in on-line discussions while making decisions, and particularly while planning and negotiating political decisions. True democracy has a chance if all citizens have access to the networks, if every citizen receives an e-mail address; if not at home, at least in public places, e.g. in the libraries. Politicians may be in trouble!

\* There is also the important issue of values and morals in this information flow. Where is the critical stance taught? Fortunately, information technology and education have recognized their dependence on each other. The media arouse curiosity about matters that can often be comprehended only by means of the tools provided by schools. Schools have also discovered that they do not have an educational monopoly over children. The stage has been reached when each may be able to concentrate on what it does best. School-based learning will be not so much transferring and rearranging the flow of information but relating, understanding, and judging it critically and discussing the values and value implications of knowledge and its use today and in the future.

*Lamenting and sorrow won't help, but work and action will. Onward now, brother - and sister!*

*Kun haluat rakentaa purren,  
älä kutsu miehiä kokoon hankkimaan puuta,  
kunnostamaan työkaluja  
antaaksesi tehtäviä ja jakaaksesi töitä.  
Opeta heille kaipuuta aavalle rannattomalle merelle!*

*"What shall I do in this hangman's hour, what shall I do? Why was I born? Why didn't I sooner open my eyes as a split-lipped young hare under that spruce yonder? Or as a squirrel, who chatters on the fork of yon pine with his tail bolt upright? And he needn't learn to read. He needn't know how to read! Each was given his lot, and 'a sword to match'. And lamenting and sorrow won't help, but work and action will. Onward now, brother!"*  
*Aleksis Kivi, Seven Brothers*

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