INFORMATION SEEKING AND LEARNING HABITS OF ELEMENTARY SCHOOL STUDENTS

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ABSTRACT

Young people are often viewed as an age group who consider the Internet and World Wide Web an integral part of their life and PLE. The main aim of the paper is to examine information seeking and learning habits of elementary school students in our contemporary society. The methodology of this research is based on the Radical Change Theory. The paper examines one of the issues specified by the theory: How do young people seek information and learn?

The empirical research mainly reflects the findings obtained during five focus group discussions with elementary school students. Every single participant of the discussions has similar educational background and age: they are Form 8 or Form 9 students, who attend school in one of the biggest Latvian cities.

The study of information behaviour of Latvia's elementary school students shows that computer technologies are an integral part of PLE of elementary school students, and information seeking and learning habits of Latvian adolescents comply with the main information behaviour characteristics laid down by the Radical Change Theory. The study also leads to the conclusion that this age group's real identity cannot be separated from their digital identity. The Internet and online environment have become an indispensable part of elementary school students' daily lives and are widely used in information seeking and learning processes.

Keywords: Information Behaviour, Information Seeking Habits, Latvia, Learning Habits, Youth.

BACKGROUND

In a study report on the use of computer technologies among the inhabitants of Great Britain aged 7 to 18, published as early as in 2007, it was found that computer technologies and the Internet have become an indispensable part of the respective age group's daily lives (Green, & Hannon, 2007). Other observations and research findings confirm that the current trend of using the Internet in all fields of life and devoting a major

part of one's time to its use are particularly common among young people: children, teenagers and young adults (Abbas, & Agosto, 2013; Autry, & Berge, 2011; Dutton, Blank, & Groselj, 2013; Jones, & Fox, 2009; Madden et al., 2013a). Furthermore, in the context of the digital identity there is a growing discussion about a new dimension of the real identity – digital identity, which is directly related to a frequent and active use of online possibilities (Buckingham, 2008; Fuchs, 2008; Koosel, 2010; Prensky, 2012). Although researchers do not deny the significance of computer technologies and the Internet, when analysing their impact on the individual and his knowledge, they warn of the potential negative effects facilitated by technologies (Nicholas et al., 2011; Palfrey, & Gasser, 2008; Rowlands et al., 2008; Rideout, Foehr, & Roberts, 2010; Rubene, 2011; Taylor, 2012).

The article explores the role of the Internet in the daily life of Latvia's elementary school students, as well aims to establish if their information search habits comply with the widespread assumption about young people as particularly active Internet users. Assuming that the habits of information use in this age group differ depending on a range of factors, such as the individual's age, the article analyses individuals of the same age group. They are teenagers aged 14 to 16, who, according to the classification of teenager age groups, belong to the so called middle adolescence stage (Gorman, & Suellentrop, 2009; Hendren, 1990; Prachi, 2008). This age group was selected because this stage is characterised by the formation and enforcement of teenagers' habits, as well as an early establishment of their system of moral principles and values (Gorman, & Suellentrop, 2009; Prachi, 2008).

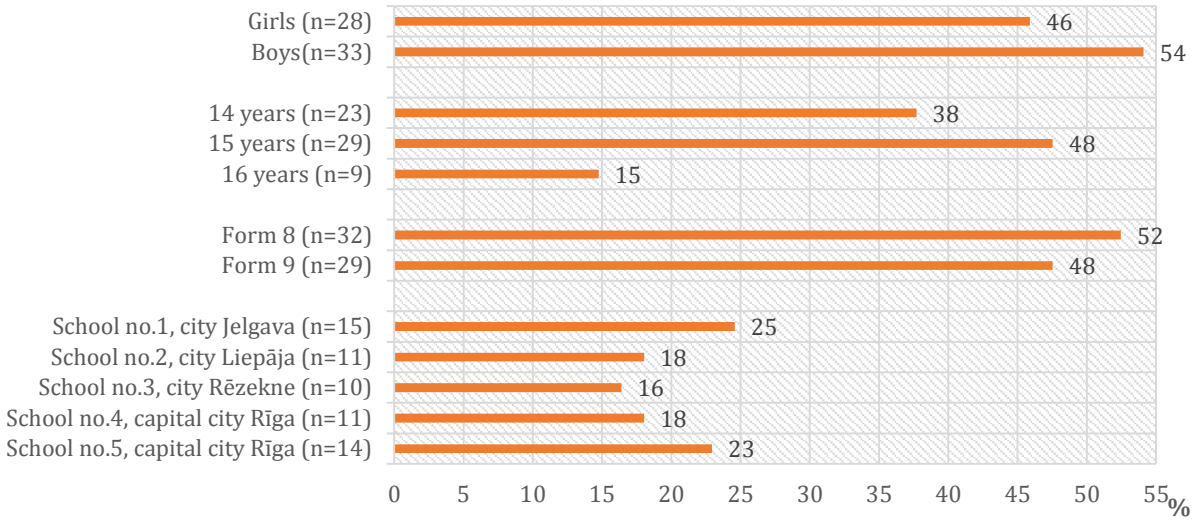
For the purposes of this study, the author has used the Radical Change Theory, which combines the findings by researchers of information science, education, media studies, cognitive psychology and sociology with regard to information behaviour of 6 to 18 years old children, teenagers and youngsters (Dresang, & Koh, 2009). The paper examines one of the issues specified by the theory: How do young people seek information and learn?

METHODS

The paper mainly reflects the findings obtained during five focus group discussions (n = 61). When describing the role of the Internet in teenagers' daily lives, they are supported by the e-survey findings (n = 820). Every single participant of this study has similar educational background and age: they are Form 8 or Form 9 students, who attend school in one of nine biggest Latvian cities (cities with the status of republic significance).

Next, the article provides a more detailed explanation of the adequacy of focus group discussions as the principal research method used with regard to teenagers and describes the participants' social and demographic profile (see Figure 1).

Figure 1. **A socio-demographic profile of respondents of focus group discussions (%; n=61)**



The focus group discussions were attended by the total of 61 respondents aged 14 to 16 years (28 girls and 33 boys). A significant prerequisite for a successful progression of a focus group discussion is the optimum number of participants. The general assumption is that the average number of participants in one discussion is 8 to 12 persons (Raby, 2010). When organising discussions with teenagers, it has been observed that teenagers tend to feel more relaxed and involved in the discussion in groups with a bigger number of participants (Hyde et al., 2005). The focus group discussions analysed in the article consisted of 10-15 respondents per group, but the average number of respondents in one group was 12 participants. The participants' small age difference and their belonging to the same age group (the middle adolescence) could also be considered a factor, which had a favourable impact on their involvement in the discussions (Kennedy, Kools, & Krueger, 2001).

Although focus groups most frequently consist of adult participants and researchers are not very keen to discuss the possibilities of using such discussions for surveying youngsters (Raby, 2010), the previous studies show that focus groups are a suitable method and help to ensure a high-quality data generation in teenager-related studies (Gibson, 2007; Khadka et al., 2008; Raby, 2010).

The questions in these discussions were prepared on the basis of the Radical Change Theory and by studying the foreign researchers conclusions about information behaviour characteristic to youngsters.

RESULTS

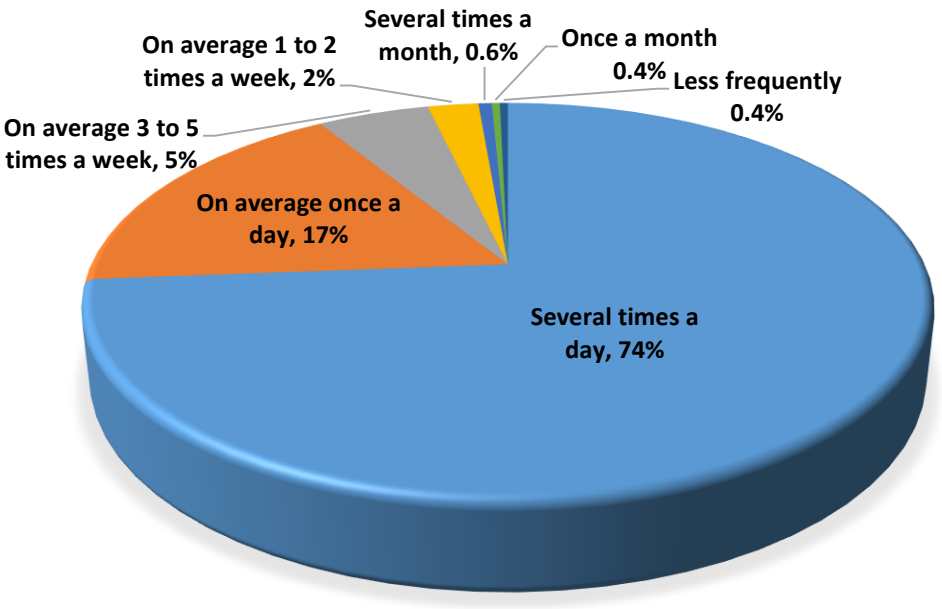
The findings of the empirical part of the study have been reflected only selectively. The article describes the elementary-school students' opinions about the topics related to their information search and use habits. At first, the role of the Internet in teenagers' daily lives is characterised on the basis of the data obtained from the e-survey and focus group discussions. In its turn, the subsequent part of the article summarises teenagers' opinions from focus group discussions about the issues, which, in the process of describing information search and acquisition, are highlighted by the Radical Change Theory (Dresang, & Koh, 2009). They are as follows:

- Where do teenagers search for information initially in various situations? (see. section *"Primary Sources of Information"*)
- Which information format do teenagers choose as a priority? (see section *"Preferable Format and Form of Information"*)
- In what cases do teenagers use print resources? (see section *"Preferable Format and Form of Information"*)
- While using the Internet for doing their homework, do teenagers simultaneously perform other activities online? (see section *"Attention Distribution during Information Search"*)
- Which are the most popular online resources among teenagers? (see sections *"The Most Popular Online Resources"* and *"Primary Sources of Information"*)

Role of the Internet

The results obtained in the e-survey and focus group discussions confirm the significance of the Internet among Latvia's teenagers. According to the data of the e-survey, almost three-fourths of the respondents – 74% (605) use the Internet several times a day, whereas 17% (143) – on average once a day, 5% (42) – on average 3 to 5 times a week, 2% (19) – on average 1 to 2 times a week, less than 1% (3-5) of the respondents use the Internet several times a month or even less frequently (see Figure 2). Thus, more than 90% of students use the Internet at least once a day.

Figure 2. **Frequency of internet use (%; n=820)**



The opinions expressed by the participants of the focus groups indicate that for a considerable part of the respondents the lack of the Internet would cause a significant inconvenience and would make them change their daily habits. At the same time, the results show that the significance of the Internet in teenagers' daily lives differs. There are those who cannot imagine their life without the Internet and spend all or a considerable part of their free time online, whereas others do not consider the Internet such a significant part of their daily life and use it less and not so frequently. Teenagers reveal that they mostly use the Internet for entertainment and leisure. Simultaneously, they point out the importance of the Internet in their learning process and highlight communication possibilities on the Internet. In most cases, the research participants use the Internet at least once a day. Most often – on weeknights at home after school and at weekends.

The students, who mention other alternative activities instead of using the Internet, are more likely to admit that they could get by without using the Internet, and they point out that they do not feel any serious inconvenience when the Internet is inaccessible. For instance:

> "If there are activities, if there is something to do, there is no time for the Internet, and there is no particular wish for it."

> "I personally could get by without the Internet easily and without any problems. Well, if I had to choose between a mobile phone and the Internet, I would definitely go for a mobile phone because I think that the Internet is not the best way of spending one's free time."

The majority of the students, who point out that they could get by without the Internet, nevertheless specify various circumstances and periods of time, during which they would not miss the Internet and would be able to fill their time with other activities instead of the Internet. The most popular activities, which all focus group participants would like to perform if the Internet was inaccessible, include spending time with one's friends outside and gardening at home or in the countryside. Other activities include watching TV and the use of print resources, in particular reading books and magazines.

Primary Sources of Information

The summary of the respondents' answers to the question 'where do you look for information initially in various situations' revealed that the Internet is the most common and often the only source of information search. Teenagers point out the importance of the Internet in the learning process. There is also an opinion that the time spent online reduces the time to be devoted to homework or teenagers do not do their homework at all.

> "I do just a few assignments. Well, the ones that seem the most important. I try not to work too hard, but I do the ones, which really have to be done. In my opinion."

When teenagers search for information, they often choose *Google* search engine as their first or one of the first options. They point out its potential in information search. Another comparatively popular resource for such purposes is the online encyclopaedia – *Wikipedia*.

> "Like everyone else, [..] I look for information on the Internet, in *Wikipedia*, *Google*, and, if it is not there, I keep looking on other websites.

Apart from the Internet, there are other potential sources of information, such as library, books, other people and home library. Teenagers mention them comparatively much less than the Internet, though.

"In rare cases – the library. Usually on the Internet."

"I look for information on the Internet. Also, in various textbooks."

"On *Google* and from knowledgeable acquaintances."

"If I don't find anything in the sources available at home, I use the Internet."

Preferable Format and Form of Information

When choosing the information of a similar content available in various formats (picture, audio, text and video), teenagers prefer information in the video format. It is followed by text, audio and picture. Teenagers specify visual memory, the possibility to avoid reading and time economy as the major reasons for choosing video instead of reading a similar text.

"I have visual memory, so I prefer videos and pictures."

"I am more likely to remember the content of a video. It's not that I am too lazy to read, but, well, it is more interesting to watch something instead of reading. You can rest your mind, and it is easier to remember."

"In a video you have a wider perspective on the information, whereas in the textual version it would be much narrower."

Several teenagers, who during the discussion compare their favourite formats (video and text), describe the text as, in their opinion, the highest quality format available. For instance:

"[..] when you watch a movie, you rob yourself in a way because when you read a book, you can imagine these events and personalities differently. However, when you see the same events in a movie, they are shown in a definite way, and that's it!"

At the same time, although teenagers are aware of the advantages of the text, in certain or even all situations, if possible, they would choose the video format out of the four available formats. There is also a suggestion "to make a movie about everything" or "a movie for each book".

In the discussions students point out that the most preferable format of information may change depending on the purpose for use. Furthermore, the purpose for use influences teenagers' choice in favour of electronic or print resources. Despite the popularity of the Internet, all teenagers, who participated in the discussions, say that there are situations when it is more convenient to use resources in the print format. According to the teenagers' responses, there are three purposes for use of the information available in the print format: learning needs, unsuccessful information search on the Internet and spending one's leisure time.

In all discussions, the opinion prevails that the print resources are more suitable for learning needs. Such a choice is also supported by those teenagers, who believe that any information is available on the Internet. Students place a particular emphasis on the significance of textbooks in the acquisition of certain subjects (especially Literature,

History, Physics and Chemistry). The majority of the teenagers point out that for the purpose of reading fiction they prefer the print resources – books in particular – instead of electronic resources. In addition, students feel more motivated to use textbooks of a specific subject before tests. There are opinions that tests are the main reason for reading magazines.

> "In History, I have to write a test about a particular subject. If it is discussed in magazines, I read about it, and I am interested and want to learn more about it."

The teenagers' answers indicate that their choice of using the print format is influenced not only by the school subject and related tests, but also by the respective teacher. The way, in which the teacher attempts to teach the respective material and the information resources he\she proposes influence students' choice of using or not using print resources. Individual teenagers also tend to use print resources if they have not managed to find the required information online. However, there is an opinion that such a situation is absolutely unlikely as, in their opinion, one can find all necessary information on the Internet. Reading of print resources as a leisure activity is not popular although there are respondents, who consider it an exciting activity.

Attention Distribution during Information Search

The research findings show that in their daily lives teenagers usually combine information search on the Internet as part of their homework with other online activities or, in other words, engage in multitasking. A part of teenagers are aware that a simultaneous execution of multiple activities interferes with doing homework to a certain extent, prolongs the time required for doing their homework, reduces the quality of their assignments and prevents from completing their homework. For instance:

> "When I was younger and still at elementary school, my mom used to say: "You may turn on the computer only after finishing your homework!" And that's how it was, it was easier this way, whereas now as soon as I arrive home, I turn on the computer. I check all the news, and only then start doing my homework. And, naturally, when you do something, you simultaneously do something else on the Internet and you don't focus on your homework as much. It turns out to be quite sloppy compared to if it was done without computer, it would be done, and no fuss."

Some respondents admit that they try to limit other activities during doing their homework:

> "If I study, I sit down at the computer, focus on my homework, and complete everything at one go. Because in this way I will have more time after so that I can focus on the new activity, the reason why I sit down at the computer. In this way I simply win more time."

> "Usually, when I visit *Draugiem.lv [*the most popular social network in Latvia*]* and I am also making, for example, a presentation on the computer, I overstay there and miss something in my presentation. As it disturbs me, I usually don't log onto this website at all."

In their turn, others are not ready to change anything:

"I usually turn on a sports channel on TV and music on my computer. I mean, a little, not much. [..] I am doing my homework, I hear what is going on. It is interference, but I want it."

Among teenagers there are also those, who praise the advantages of multitasking. They reveal that they are not used to learning in silence therefore they consciously create background noises to help them with doing their homework. Other simultaneous activities also inspire the respondents and help them relax while they are looking for homework-related information on the Internet. Besides, students argue in favour of multitasking as a convenient way of discussing homework-related questions online.

"Well, I prefer to have some background sound while I am doing my homework. Most often I choose music as I find it hard to study in an absolute silence. The tiniest noise disturbs me. And sometimes I chat, but it... I talk to my friend, she is one year older, and I talk about homework, if I have to study. It helps."

In each discussion, at least one respondent maintains that multitasking during doing their homework does not interfere with completing the assigned tasks and there is no adverse impact on the quality of homework.

While doing their homework, teenagers are likely to get involved in one to four parallel activities, but most often teenagers perform two additional activities in addition to their homework. Listening to music is the most popular activity that is performed during doing one's homework. It is followed by chatting or instant messaging, watching TV, using social networks and websites, checking one's email and playing computer games.

Those teenagers, who, in contrast to the majority, make a conscious effort to focus only on homework and usually do not perform any other parallel activities, similarly to their peers admit the appeal of online activities. However, their previous experience has convinced them that doing one's homework simultaneously with various online activities has an adverse impact on its quality.

"I know it is very important to do the first things first. I must do my homework or complete a project as a priority, and only then I may relax."

"When I have to write a paper, I do not do anything else, not even listening to music, nothing because it distracts me."

"Usually, when I visit *Draugiem.lv* and I am also making, for example, a presentation on the computer, I overstay there and miss something in my presentation. As it disturbs me, I usually don't log onto this website at all."

All in all, the respondents' opinions reinforce the fact established at an earlier stage – the Internet is used actively during learning process, including for unrelated activities.

The Most Popular Online Resources

Among the resources specified by teenagers, the most popular are social networks, search engines and instant messaging software. In the subsequent paragraphs, the author analyses the findings, which reveal the habits of using social networks and instant messaging, whereas students' opinions about search engines are reflected in the chapter "*Primary Sources of Information*".

In all discussions, students rank social networks among the most popular online resources. The most popular is *Draugiem.lv* – a social network created in Latvia, followed by *Twitter* and *Facebook.* With regard to their habits of using social networks, students reveal that they are used in order to perform activities related to the creation and updating of online content. Students also visit social networks on a regular basis in order to follow the news in their online accounts, as well as to communicate with their friends and relatives, who are either in Latvia or abroad. Several students point out that, if required, they tend to use social networks in order to discuss various questions with their friends, e.g., related to the content of their homework. Other reasons for using these resources are boredom or moments when 'there is nothing to do'. In addition, students tell that they use these resources in order to be informed as, according to their responses, this is the way how they learn 'what is going on in the world', 'what is going on around', 'what the weather is like' and 'when someone's birthday is'. For some respondents, the motivation for using social networks is related to the games available there.

During the discussions, students also give their evaluation of social networks. The majority of them give a positive evaluation, including by highlighting the significance of social networks in their daily life.

> "In my opinion, I cannot live without social networks because, well, I like to socialise. I like it! Me, I am on *Facebook* and *Draugiem.lv*, and *Twitter*. [..] It *[*social networks*]* forms the community."

> "Social networks are the place, where the most action happens."

However, there were contrasting views as well, which indicates that the respondents in question either do not use social networks at all or, if they do, then rarely and, overall, have a negative attitude to such resources. For instance:

> "I have an account on *Draugiem.lv*, but I… If it was a vase, it would be half full with dust, which I do not clean. Because I visit it so rarely. I do not remember the last time I was there!"

> "I used to be there, but not anymore! Some time ago I used *Draugiem.lv*, *Facebook*, even *Twitter*, but it seemed somewhat useless."

Apart from social networks and search engines, students often use instant messaging software, mostly *Skype*. The majority of teenagers, who express their opinion about this resource, reveal that they often use it to get in touch with their relatives, friends, classmates and 'everybody else'. During the discussions, teenagers often mention *Skype* as the resource, which they use during doing their homework. Students' opinions indicate that for communication purposes in an informal environment (friends, classmates, family) social networks and instant messaging are the most important communication channels, which prevail over, e.g. using email.

RESULTS AND DISCUSSION

The results of the empirical research similarly to the studies conducted during the previous years (Dresang, & Koh, 2009; Green, & Hannon, 2007; Latviešu valodas aģentūra, & Baltic Institute of Social Sciences, 2011; Palfrey, & Gasser, 2008; Purcell et al., 2012), fully confirm the trend to use the Internet as the primary source of information search. Similarly to their peers abroad (Luckin et al., 2009; Ólafsson, Livingstone, & Haddon,

2013; Palfrey, & Gasser, 2008; Purcell et al., 2012), Latvia's teenagers consider *Google* and *Wikipedia* to be important resources for information search. These and other online resources significantly prevail over usage rates of other sources proving that, for example, libraries rarely are the primary source of information although teenagers are active information searchers and users (Agosto, & Hughes-Hassell, 2010).

Researchers often point out the superiority of the printed text when acquiring information, which is related to learning needs and requires a deeper comprehension (Grenina, 2012; Stoop, Kreutzer, & Kircz, 2013a; Stoop, Kreutzer, & Kircz, 2013b; Watson, 2010). The findings analysed in the article re-confirm teenagers' preference for print resources for learning purposes. However, teenagers' habits of using the Internet reveal that electronical information, not necessarily in a textual form, in many cases seems more attractive to teenagers than a printed text. Taking into consideration that the respondents admit the potential of the print resources for learning purposes, it could be maintained that they use both the new and the conventional media for information retrieval, as determined by the Radical Change Theory (Dresang, & Koh, 2009). Likewise, the information behaviour of Latvia's teenagers confirms the theoretical statement that visualised information is particularly attractive to teenagers (Dresang, & Koh, 2009).

The foreign researchers' assumption that the Internet and modern technologies have fundamentally changed teenagers' learning habits (Bennett, & Maton, 2010; Purcell et al., 2012) is supported by the results related to attention distribution during the learning process obtained during the focus group discussions. Multitasking, which according to the Radical Change Theory is especially characteristic of young people (Dresang, & Koh, 2009), is also attributable to Latvia's teenagers. They have a habit of distributing their attention and getting involved in several activities at once while they are using computer for doing their homework. Likewise, the researchers in the USA (the United States of America) have concluded that the majority of teenagers multitask on a regular basis. Besides, teenagers themselves admit that they do it during doing their homework (Agosto, Valenza, & Abbas, 2011). Other studies conducted in the USA reveal the popularity of multitasking among teenagers and confirm the increase in the frequency of its use (Abbas, & Agosto, 2010; Rideout, Foehr, & Roberts, 2010). In accordance with the results analysed in the article, a part of the respondents are aware that performance of several activities at once impedes completion of their homework, but they are not always ready to drop this habit. The previous studies conducted in Latvia also show that using the Internet during the learning process may have an adverse impact on this process and may reduce its quality (Brice, 2012). In turn, 77% of teachers from the USA believe that the overall influence of the Internet on the learning process is rather to be considered positive than negative (Purcell et al., 2012). Furthermore, the participants of the empirical research expressed an opinion that combining their homework activities with other activities does not interfere with their ability to focus, but, quite contrary, enable them to do their homework better and even relax at the same time.

The empirical studies, similarly to other studies conducted in Latvia, show the popularity of social networks among teenagers aged 14 to 18 (Latvijas Drošāka interneta centrs, 2010) or students of Form 5 – 9 (SKDS, 2011). Besides, social networks are also used by teenagers abroad (Abidin, Kiran, & Abrizah, 2013; Livingstone et al., 2011; Madden et al., 2013b). The main incentive why teenagers in Latvia and other countries use social networks is communication with their friends (Abbas, & Agosto, 2010; Awan, & Gauntlett, 2013; Sánchez-Navarro, & Aranda, 2013). Instant messaging also ranks among

the most commonly used online resources. In addition, the results of the empirical research prove the statement that email is considered an out-dated channel of information by teenagers (Hannan, 2011) because, at least for informal communication, social networks and instant messaging are many times more popular.

CONCLUSION

The current habits of information search and use characteristic of Latvia's teenagers are indicative of the existence of a new model for information search and acquisition facilitated by the Internet culture, as envisaged by the Radical Change Theory (Dresang, & Koh, 2009). In accordance with the obtained results, the study of information seeking and learning habits leads to the following conclusions about the information behaviour of Latvia's elementary school students:

- the Internet is the most popular, primary and often the only source of obtaining information, a recreational space and a very important channel of communication with peers or relatives;
- printed resources are predominantly used for studying purposes;
- among the four formats (audio, picture, text, video), the video format is the most desirable;
- as computer is used for doing their homework, elementary school students tend to divide their attention and get involved in several, parallel activities (multitasking), often unrelated to their homework. The most popular parallel activities are listening to music, chatting or instant messaging, watching TV, using social networks and web portals;
- social networks and search engines are among the most frequently used online resources;
- for communication purposes in an informal environment (friends, classmates, family), social networks and instant messaging are the principal channels of online communication.

The elementary school students' habit of using the Internet as the primary source of information shows that it is necessary to raise students' awareness of the quality aspects of electronic communication, as well as to expand their horizon by offering alternative online resources to the ones frequently used by them: *Google* and *Wikipedia.* Furthermore, students could find the tasks, which have to be completed by using other resources unrelated to the Internet and the usual electronic sources, challenging.

The findings of the study remind us of the negative impact of the Internet on the quality of students' individual work and is indicative of students' aspiration to complete their assignments faster, including by using information that is easier to perceive and does not require a deeper understanding. Multitasking is another factor that may have a negative impact on the quality of homework assignments.

Video as the most attractive format for many students potentially could be widely used in the learning process. At the same time, for learning purposes students prefer printed books, especially textbooks, due to their convenience.

Students' habits of using social networks and instant messaging software prove that these resources have a significant role in many students' daily lives. Although they are predominantly used for purposes unrelated to studying, if required, teenagers use them for discussing study material.

All in all, students' habits of information search and learning indicate that students spend a lot of time online therefore they do not see the online and offline environments as two separate media anymore. Social networks and instant messaging software are the major communication platforms, which are related to the ways of expressing their digital identity in the digital environment.

ACKNOWLEDGEMENT

This work has been supported by the European Social Fund within the project «Support for Doctoral Studies at University of Latvia».

REFERENCES

Abbas, J., Agosto, D. E. (2013). Everyday life information behavior of young people. In: Beheshti, J., Large, A. (Eds.). *The information behavior of a new generation: Children and teens in the 21st century.* Lanham, MD: Scarecrow Press. P. 65-91.

Abbas, J., Agosto. D.E. (2010). Urban Teens, Online Social Networking, and Library Services. In: Agosto, D.E., Hughes-Hassell, S. (Eds.). *Urban teens in the library* : *research and practice.* Chicago : ALA. P.67-81.

Abidin, M. I., Kiran, K., & Abrizah, A. (2013). Adoption of Public Library 2.0: Librarians' and teens' perspective. *Malaysian Journal of Library & Information Science*, 18(3), 75-90.

Agosto, D. E., Valenza, J. K., Abbas, J. (2011). Looking closely at teens' use of social networks: What do high school seniors do online? . In: Agosto, D. E., Abbas, J. (Eds.), *Teens, libraries, and social networking: What librarians need to know.* Santa Barbara, Calif. : Libraries Unlimited. P. 13-27.

Agosto, D.E., Hughes-Hassell, S. (2010). Revamping Library Services to Meet Urban Teens' Everyday Life Information Needs and Preferences. In: Agosto, D.E., Hughes-Hassell, S. (Eds.). *Urban teens in the library : research and practice*. Chicago : ALA. P. 23-40.

Autry, A. J. Jr, & Berge, Z. (2011). Digital natives and digital immigrants: getting to know each other. Industrial and Commercial Training, 43(7), 460-466.

Awan, F., Gauntlett, D. (2013). Young People's Uses and Understandings of Online Social Networks in Their Everyday Lives. *Young*: *Nordic Journal of Youth Research,* 21(2), 111-132.

Bennett, S., Maton, K. (2010). Beyond the 'digital natives' debate: Towards a more nuanced understanding of students' technology experiences. *Journal of Computer Assisted Learning*, 26, 321-331.

Brice, L. (2012). Latvia. *EU Kids Online: national perspectives, October 2012*. Retrieved from http://www.lse.ac.uk/media@lse/research/EUKidsOnline/EU%20Kids%20III/Reports/PerspectivesReport.pdf

Buckingham, D. (2008). Introducing identity. In: Buckingham, D. (Ed.). *Youth, identity, and digital media.* Cambridge, MA: MIT Press. P. 1–22.

Dresang, E. T., Koh K. (2009). Radical Change Theory, Youth Information Behavior, and School Libraries. *Library Trends*, 58(1), 26-50.

Dutton, W.H., Blank, G., Groselj, D. (2013) Cultures of the Internet: The Internet in Britain. Oxford Internet Survey 2013. Oxford Internet Institute, University of Oxford. Retrieved from http://oxis.oii.ox.ac.uk/sites/oxis.oii.ox.ac.uk/files/content/files/publications/OxIS_2013.pdf

Fuchs, C . (2008). *Internet and society: social theory in the information age*. New York; London: Routledge. 398 p.

Gibson, F. (2007). Conducting focus groups with children and young people: strategies for success. *Journal of Research in Nursing*, 12(5), 473-483.

Gorman, M., Suellentrop, T. (2009). *Connecting young adults and libraries: a how-to-do-it manual*. New York; London: Neal-Schuman Publishers. 389 p.

Green H., Hannon C. (2007). *Their Space Education for a digital generation*. London: Demos. 79 p.

Grenina, A. (2012). Electronic books: content provision and adoption possibilities among users in Latvia. *Information Research*, 17 (1), paper 512. Retrieved from http://www.informationr.net/ir/17-1/paper512.html

Hannan, A. (2011). Communication 101: We have made contacts with teens. *Australasian Public Libraries and Information Services (APLIS),* 24(1), 32-38.

Hendren, R. L. (1990). Stress in adolescence. In: Arnold L. E. (Ed.). *Childhood stress*. New York: Wiley. P. 247-264.

Hyde, A., Howlett, E., Brady, D., & Drennan J. (2005). The focus group method: Insights from focus group interviews on sexual health with adolescents. *Social Science and Medicine*, *61*, 2588–2599.

Jones S., & Fox S. (2009). Generations Online in 2009. *Pew Internet & American Life Project*. Retrieved from http://www.pewinternet.org/Reports/2009/Generations-Online-in-2009.aspx

Kennedy, C., Kools, S., Krueger, R. (2001) Methodological considerations in children's focus groups. *Nursing Research,* 50(3), 184–187.

Khadka, J. et. al. (2008). Focusing Children in Focus Groups. *Ophthalmic & Physiological Optics*, 28(1), 99.

Koosel, S. M. (2010). Digital Identity: The private and public paradox. In: Aljas A., Kelomees, R., Laak, M., Pruulmann-Vengerfeldt, P., Randviir, T., Runnel, P., Savan, M., Tomberg, J., & Viires, P. (Eds.). *Transforming culture in the digital age*. Tartu: Estonian National Museum, Estonian Literary Museum, University of Tartu, 2010. P. 149-153.

Latviešu valodas aģentūra, Baltic Institute of Social Sciences (2011). Mediju lietošanas kompetence skolēnu un skolotāju mērķa grupā: pētījuma rezultātu ziņojums. Baltic Institute of Social Sciences. Izgūts no http://www.bilingvals.lv/uploads_docs/BISS_Mediju_komptence_2011_1323249632.pdf

Latvijas Drošāka interneta centrs (2010). Moderno tehnoloģiju izmantojums un drošība internetā. *Latvijas Interneta asociācija*. Izgūts no http://www.drossinternets.lv/upload/materiali/petijumi/petijums_modernas_tehnologijas_drosiba_interneta_2010.pdf

Livingstone, S., Haddon, L., Görzig, A., & Ólafsson, K. (2011). Risks and safety on the internet: the perspective of European children: full findings and policy implications from the EU Kids Online survey of 9-16 year olds and their parents in 25 countries. *EU Kids Online.* Retrieved from http://eprints.lse.ac.uk/33731/

Luckin, R., Clark, W., Graber, R., Logan, K., Mee, A., & Oliver, M. (2009). Do Web 2.0 tools really open the door to learning? Practices, perceptions and profiles of 11–16-year-old students. *Learning, Media and Technology,* 34(2), 87-104.

Madden, M., Lenhart, A., Duggan, M., Cortesi, S., & Gasser, U. (2013a). Teens and Technology 2013. *Pew Internet & American Life Project*. Retrieved from http://www.pewinternet.org/~/media//Files/Reports/2013/PIP_TeensandTechnology2013.pdf

Madden, M., Lenhart, A., Cortesi, S., Gasser, U., Duggan, M., Smith, A., & Beaton, M. (2013b). Teens, Social Media, and Privacy. *Pew Internet & American Life Project*. Retrieved from http://www.pewinternet.org/files/2013/05/PIP_TeensSocialMediaandPrivacy_PDF.pdf

Nicholas, D., Rowlands, I., Clark, D., & Williams, P. (2011). Google Generation II: web behaviour experiments with the BBC. *Aslib Proceedings*, 63(1), 28-45.

Ólafsson, K., Livingstone, S., Haddon, L. (2013) *Children's use of online technologies in Europe : a review of the European evidence base. EU Kids Online.* Retrieved from http://eprints.lse.ac.uk/50228/1/__Libfile_repository_Content_Livingstone%2C%20S_Children%E2%80%99s%20use%20of%20online%20technologies%20in%20Europe%28lsero%29.pdf

Palfrey, J., Gasser U. (2008). Born digital : understanding the first generation of digital natives. New York : Basic Books. 375 p.

Prachi (2008). Psychological Concerns of Children and Adolescents. In: Mukherjee D. K., Nair M. K. C. (Eds.). *Growth and Development*. Delhi: Jaypee Brothers Medical Publishers. P. 138-146.

Prensky, M. (2012). *From digital natives to digital wisdom* : hopeful essays for 21st century learning. Thousand Oaks, Calif. : Corwin. 227 p.

Purcell, K., Rainie, L., Heaps, A., Buchanan, J., Friedrich, L., Jacklin, A., Chen, C., & Zickuhr, K. (2012). How teens do research in the digital world. *Pew Internet & American Life Project*. Retrieved from http://pewinternet.org/~/media/Files/Reports/2012/PIP_TeacherSurveyReportWithMethodology110112.pdf

Raby, R. (2010). Public selves, inequality and interruptions: the creation of meaning in focus groups with teens. *International Journal of Qualitative Methods*, 9(1), 1-15.

Rideout, V. J., Foehr U. G., Roberts, D. F. (2010). Generation M^2: Media in the Lives of 8-to-18-Year-Olds. Menlo Parl, CA: *Kaiser Family Foundation*. Retrieved from http://www.kff.org/entmedia/upload/8010.pdf

Rowlands, I., Nicholas, D., Williams, P., Huntington, P., Fieldhouse, M., Gunter, B., Withey, R., Jamali, H. R., Dobrowolski, T., & Tenopir, C. (2008). The Google generation: the information behaviour of the researcher of the future. *Aslib Proceedings*, 60(4), 290-310.

Rubene, Z. (2011). Bērns un jaunietis digitālajā pasaulē. Grām.: Rubene, Z. (red.). *Tagad*: *zinātniski metodisks izdevums*. Rīga: Latviešu valodas aģentūra, 10-13.lpp.

Sánchez-Navarro, J., Aranda, D. (2013). Messenger and social network sites as tools for sociability, leisure and informal learning for Spanish young people. *European Journal of Communication, 28(1),* 67-75.

SKDS (2011). Latvijas publiskās bibliotēkas un internets: tehnoloģijas, pakalpojumi un ietekme: 1.-9. klašu skolēnu aptauja. *Kultūras informācijas sistēmas*. Izgūts no http://www.kis.gov.lv/agentura/petijumi/

Stoop, J., Kreutzer, P., & Kircz, J. G. (2013a). Reading and learning from screens versus print: a study in changing habits Part 2. New Library World, 114(9/10), 371-383.

Stoop, J., Kreutzer, P., & Kircz, J. G. (2013b). Reading and learning from screens versus print: a study in changing habits Part 1. Reading long information rich texts. New Library World, 114(7/8), 284-300.

Taylor, A. (2012). A study of the information search behaviour of the millennial generation. *Information Research,* 17(1), paper 508.

Watson, R. (2010). *Future minds: How the digital age is changing our minds, why this matters, and what we can do about it*. London: Nicholas Brealey Pub. 213 p.