



MEDIA LITERACY AND DIGITAL DIVIDE: A CROSS-CULTURAL CASE STUDY OF SWEDEN AND LITHUANIA

Vilmantė LIUBINIENĖ¹, Daniel Persson THUNQVIST²

¹Kaunas University of Technology,
Faculty of Social Sciences, Arts and Humanities,
Department of Modern Languages and Intercultural Communication,
A. Mickevičiaus str. 37, Kaunas, Lithuania

²Linköping University,
Faculty of Arts and Sciences,
Department of Behavioural Sciences and Learning,
Universitet SE-58183 Linköping, Sweden
E-mails: ¹vilmante.liubiniene@ktu.lt (corresponding author); ²danpe@ibv.liu.se

Received 13 January 2015; accepted 27 April 2015

A case study of Sweden and Lithuania aims at analysing the important question of inclusion and exclusion when it comes to the media literacy and the digital divide. Analysis of country-level factors, such as social-stratification, technological infrastructure, educational system, cultural values is provided with the goal to identify the keen factors widening the digital divide of certain population groups in both countries. The study has revealed that in regard to media literacy, age matters the most in case of Lithuania. On the contrary, in Sweden the digital divide between different age groups is diminishing but the media literacy of socio-economically marginalized groups (immigrants in particular) is much lower as compared to the general trends in population. The digital generation – children and teenagers – have got much more in common in both countries as opposed to the senior adult populations.

Keywords: digital culture, digital divide, digital generation, media literacy, network society, social stratification.

Introduction

The study focuses on two interconnected themes and challenges, namely the similarities and differences regarding acquisition of media literacy and patterns of digital divide persistent in the local contexts of two countries – Sweden and Lithuania. The study also aims at analyzing the digital generation, namely children and teenagers, who shape and are shaped by the global digital culture. Contemporary societies are faced with a lot of challenges, which come as a result of the new media revolution and the overwhelming technological advancement of the global networking. Consequently, the new contexts of digital media evoke new patterns of behavior as well as new commu-

nication models, especially among the young. The purpose of the analysis is not only to describe cross-cultural similarities and differences, but also to understand if country-level factors still matter as we try to explain the observed patterns of variations.

As this is the initial stage of research, which might be later developed into a more solid research project, the choice of research methodology was restricted to the analysis of already existing surveys, namely, statistics and available data. In order to compare country-level variations, we have conducted the secondary analysis of the data from the survey Special Eurobarometer 390, “Cyber Security”: Report accomplished in 27 European Union (EU) countries in 2012. The comparative analysis presented in this article, dealing with the premises and challenges of media literacy and the digital divide in Sweden and Lithuania, has not been at the focus of attention in any previous analyses of the collected data. Some supplementary country level statistics has been added and used in order to detect and ground the prevailing tendencies.

As the result of the digital media revolution not only all stages of communication have been affected but “all types of media – texts, still images, moving images, sound, and spatial constructions” (Manovich 2001: 19) have undergone the changes. How does the new media revolution compare with the technological revolutions of the past (speech, writing, print)? The whole communication process has changed enormously due to the implementation of digital technologies which supplied us with the new media tools for creation and expression of our ideas as well as for the storage and spreading of the information on a global scale. Digital technologies have extended traditional media and have created new immersive experiential media. As Kristina Hooper Woolsey puts it, “the context for the interactions and exchange of these media have been altered drastically by digital technologies, creating a very new digital ‘soup’ in which we humans are now exchanging and developing our ideas” (Woolsey 2005: 2).

In such a context, it is crucial to develop the skills of media literacy as well as to understand the importance of it as a 21st century approach to education. In a definition formulated by the Centre for Media Literacy, it is emphasized that *media literacy* “provides a framework to access, analyse, evaluate, create and participate with messages in a variety of forms – from print to video to the Internet. Media literacy builds an understanding of the role of media in society as well as essential skills of inquiry and self-expression necessary for citizens of a democracy” (Centre for Media Literacy 2011).

Media literacy is closely related to another important development – digital divide. Pål André Aarsand and Karin Aronsson (2009) conceptualize the *digital divide* as “the difference between those who know and those who do not know how to act in a digital environment”. Thus we see that the ability to read and produce audio and visual texts in digital environments has become no less important than the skills of general literacy.

The study aims at achieving three objectives: first, to describe the characteristic traits of the digital generation; second, to explore country-level factors, such as social-stratification, technological infra-structure, educational system, cultural values in order to reveal the possible reasons for digital divide in a population; and finally to analyse cross-cultural similarities and differences, comparing Sweden with Lithuania, providing the tentative conclusions how country-level factors can explain the observed patterns of variations in regard to media literacy and digital divide.

Media literacy of digital natives as opposed to digital immigrants

The widespread penetration of the Internet and digital media has changed both the producers of media texts as well as the audiences. Consequently, a new media language community has emerged, which is different. Moreover, Paul Levinson (2013) has already introduced the concept of “New New Media” which illustrates that the new developments in the field of media studies are so fast that the scientists are hardly able to grasp and define all of them.

New new media, as opposed to the traditional “new media” of email and websites, allow and encourage all consumers to become producers, readers to become writers and publishers, viewers to become performers. This feature of contemporary media prompts an entirely new look at how mass media, culture, and industry are undergoing the most profound changes since the advent of the alphabet and the printing press (Levinson 2013).

Children and teens who have grown immersed in the digital culture, consider the use of the Internet, playing the videogames, downloading music, or involvement in multitasking with a cell phone as the most natural daily routines. They are always online, texting, typing, and sharing, constantly connected. Miles O’Brien (2011) assumes that “we are creating a generation of technology addicts, well-informed but perpetually tempted and, distracted”. Gary Small (O’Brien 2011), defines *digital natives* as “essentially young people who grow up with the technology 24/7”.

The concept of *digital generation* refers to the first generation of *digital natives* – children who were born into the digital world and who have been raised in it. This generation is turning adult now and soon the world will be reshaped according to their image. Thus not only the lifestyle of the youngsters, but the shape of the family life, as well as culture in general sense, education, economy and politics is gaining an impetus for change and transformation. John Palfrey and Urs Gasser offer a sociological portrait of digital natives. In their study *Born Digital*, they state that:

digital natives were born after 1980, when social digital technologies came online. They all have access and the skills to use Digital technologies. This generation is different. They study, work, write and interact with each other in ways that are very different from the previous generation. They are connected to one another by a common culture. Most aspects of their lives are mediated by Digital technologies. But, despite the saturation of Digital technologies in many cultures, no generation has yet lived from cradle to grave in the Digital era (Palfrey, Gasser 2008).

In order to better understand who the digital natives are, we might compare or oppose them to the *digital immigrants* – people who have been educated before the advent of the computers, PCs, mobile phones, the Internet, e-mail and all other interactive environments, but who have mastered the skills of using all the new technologies and have incorporated them in their daily routine later on in their lifetime. But this distinction between the different generations one of which is born digital as opposed to those who were raised in pre-digital era, is not so simple. These issues require a deep analysis into experiences that teenagers have online and different interactions between adults and teens in a contemporary society.

Generally speaking, as a result of the changes brought by the new media revolution, there is no choice left. According to Brian O’Neill (2010), if one wishes to fully participate in the contemporary media and technology-rich society, one should become media literate. European media policy gives priority to the notion that all citizens need to be media literate. The Commission considers “media literacy as an important factor for active citizenship in today’s information society” (Commission of the European Communities 2009).

In other words, media literacy is concerned with the understanding of how media work, how the meanings are produced and used in the communication process. The media literate person understands the role and impact of media in forming the attitudes, shaping the value systems and, accordingly, influencing understanding, judgments and behaviour, but at the same time developing the media literacy prevents the person from being unduly manipulated and becoming unnecessarily frightened. The media literate person is in control of one’s media experiences. Failure to become media literate leads to the increasing digital divide.

Outlining the research context

The starting point for this cross-cultural case study is that Lithuania and Sweden are different societies, but share a number of global challenges related to the advancement of digital technologies and acquisition of media literacy. In both countries children and teens have integrated digital culture into their lives. While Sweden could be characterised as a network society in which digital technology has been embedded in everyday life for a relative long time, In Lithuania digital technologies have started spreading a bit later, but children and teens are quick to adapt to the new digital environment and in some cases are far ahead of the adult generation.

Yet, a cross-cultural research in the field of media literacy acquisition is still scarce; most of the research is focused on one particular country. For instance, in Sweden a range of qualitative studies on young people’s media literacy have been conducted since 2007 and most studies tend to be single-country only (Aarsand 2007; Aarsand, Aronsson 2009; Carlsson 2010; Sjöblom 2011; Alexandersson, Limberg 2012). In Lithuania, statistical data could be found, but the lack of in-depth studies is evident, especially regarding media literacy of the different population groups.

We have tried to accomplish the cross-cultural case study for several reasons: first, the simplest rationale for a comparative research is to compare with others in order to better understand oneself. In addition, it seems that we still lack knowledge on the country-level factors that influence digital engagement among young people. As a consequence, it is problematic to take the findings produced in one country and assume they may be straightforwardly applied to another cultural environment. Similarly, it is equally problematic to present findings about the digital generation in universal terms, as if “young people”, “the Internet”, “media literacy” and so forth are culture-free concepts that could be regarded as the same everywhere (see Livingstone, Helsper 2013). Hence, in order to better understand how premises for media literacy

in general population, and among the young in particular, may differ between Sweden and Lithuania, we need a second level of investigation to be added, the one which treats the countries as units of analysis. Thus, following the model, proposed by Sonia Livingstone and Ellen J. Helsper (2013), we are going to focus our attention on the analysis of factors of socio-economic, technological infrastructure, education system and cultural values as a relevant context for exploring opportunities and challenges regarding media literacy among different population groups in Lithuania and Sweden. The model permits the analysis of the processes and consequences of the Internet usage and online engagement to be contextualised within the institutional (e.g. school) as well as micro level (e.g. family) of one's life. Concentrating on young people as a separate group, the analytical model makes it possible to connect country-level factors (e.g. social-stratification, technological infrastructure, educational system, cultural values) to analysis of how digital technology is integrated and used among youngsters in different sociocultural contexts.

*Social stratification: the impact of socio-economic and
age factors on digital divide*

On a theoretical level, the challenge of the digital divide by age could be related to the concept of a network society (Castells 2010). According to Manuel Castells (2010), “a network society is a society where the key social structures and activities are organized around electronically processed information networks”. For Castells, “networks have become the basic units of modern society”. Using the Internet we can communicate in real time between the countries all over the world which clearly change the conditions and cooperation patterns for the work of different organizations as well. Expanding on Castells, Takashi Matsuyama (2010) talks about two parallel worlds, the physical real world and the cyber network society. By the physically real world we mean the society where we breathe, eat, walk, sleep and interact with other people and things. Cyber network society is the society that has been established during the recent years on top of information network systems, where important social activities such as economic business, education, entertainment, communication and many other activities are being conducted online. With the rapid growth of the cyber network society, gaps between these two societies have been associated with serious problems. A crucial issue is how the cyber network society is integrated into people's everyday life.

Moreover, the traditional understanding of the concept of social stratification changes in the network society with the advance of netocracy – the rising elite of the network society. Netocracy, the term coined in the early 1990s, according to Alexander Bard and Jan Söderqvist (2002), consists of people with excellent media skills and talent for the manipulation of information. Networks of information and new forms of communication are essential in order to be able to control finance and legislation, which, in their turn, form the new business and government elites. Netocracy is related to the global upper-class that bases its power on the technological advantage and networking skills. Thus, the future of all social structures and functions, ranging from politics, through economy, consumption models to culture and even construction of social identity might depend on the decisions of this new elite.

The major interest is how the young people's media literacy is being developed. In particular because of the effect that the different generations have on education process – both, informal education, which takes place at home (in families) and formal education, which takes place in school settings. The tools and practices that the older generation uses for socialization are still based on the pre-digital analog era. For instance, the tools that the teachers grew up with and currently employ while teaching are not the same tools that the students are using today to learn and communicate with (e.g. mobile devices).

Educational system: a shift towards media literacy acquisition

Education experiences a lot of challenges caused by new technologies and the need to find and implement new tools as well as effective methods to raise children media literate. Integration of new media literacy into the curriculum of education is a key question closely related to the shift in conception of the network society. With the advance of digital age the educational systems had to undergo huge reforms. The role of the family in this process is twofold: initiation to the digital world may start in the family very early or with some delay, depending on the education or socio-economic status of the parents. Consequently, the technological supply of children with the computer/mobile device/smart phone/etc. will depend on the status of the family.

The schools have taken the direction towards reforms in order to support the teaching of the new media skills. The context of a digital culture as well as the shift in education paradigm when learning is considered as self-directed, autonomous activity, invokes a need to develop new forms of media literacy programs, new materials to implement and develop new media skills and competencies. Children also differ by the level of media skills. There are teens, who produce, share and circulate their own media as well as there are teens, who are excluded from participation because of the lack of access to technologies, skills and competencies.

In Sweden new approaches to media literacy pedagogy have been integrated in schools at different levels. The school system in Sweden is decentralized (schools are municipal or independent) and do not have an overall national policy regarding media literacy. However, on a societal level, Sweden has got a largely shared vision of a digital culture, emphasizing an open and equal society and respect for the preferences and competencies of children and young people (Dunås 2013). In order to promote digital culture and educate competent citizens, the digital technology has to be fully integrated into schools' curriculum. This topic has already been researched for a relative long time (for an overview see Säljö 2010). By the late 1970s and early 1980s, computers (the *Apple Inc.* and *IBM PC*) began to spread to schools and universities in Sweden, mostly for administrative purposes (documentation, scheduling) but their potentials for media literacy pedagogy were also intensively discussed. During the last decade, new forms of digital technology have entered classrooms (e.g. the interactive whiteboard), schools and universities have broadband access to the Internet, and on-line teaching as well as distance education has grown up substantially.

However, what does the technological development imply in terms of media literacy? Although governments and schools have spent more money on new digital

tools, the progress in teaching and learning is not equally obvious. In Sweden, “digital curriculum materials and multimedia resources have not been integrated as part of regular teaching and educational practices to the extent that some predicted they would” (Säljö 2010: 54). Research (Alexandersson, Limberg 2012; Säljö 2010) concerning the use of digital technology in Swedish school settings during the last decades demonstrates that technology as such does not change the quality of education in a straightforward way; an increased number of computers or other digital devices does not automatically lead to the improvement of learning. Instead, it appears that the impact of digital technologies on learning depends on a positive confluence of a multitude of social, cultural and pedagogical dimensions, such as a working relationship between home and school, student engagement, group participation, and frequent feedback from mentors and connections to real-world contexts (Säljö 2010). In other words, computers and digital technologies on their own do not improve education, at least not in a uniform manner. Another research in the field indicates (Livingstone, Helsper 2013), that the education processes within the families may vary between different countries and different social contexts depending on distinct parent-child interactional patterns; as there are families characterized by a digital generation gap (in terms of the access to the Internet), families where both children and parents are low in digital skills, as well as families where children are encouraged to use the Internet from the young days and families where parents are strongly protective.

In Lithuania, nowadays, we observe the great reforms being implemented in primary and basic education sector with a large number of schools integrating new approach to media literacy pedagogy. But the lack of in-depth studies in the field, does not allow making serious cross-cultural comparisons at the moment.

Cultural-value: cross-cultural contextualization between Sweden and Lithuania

Nowadays, with the strong cooperation ties between Scandinavia and the Baltic states, the notion of the Baltic Sea Region might develop into a new political, economic and cultural entity including all the nation-states around the Baltic Sea. To consider on a wider scale, culturally across Europe there could be found a lot of regional and cultural clusters that have been formed as a result of political, economic, social, religious or historical heritage. Values, beliefs, art, language, history and the whole culture influence the political and economic behavior of societies. According to Ronald Inglehart (1999), “the fact that a society was historically Protestant or Orthodox, Catholic, Islamic, or Confucian gives rise to cultural zones with distinctive value systems that persist when we control for the effects of economic development”. On the other hand, new media and new technologies may act as the powerful uniting force not only shaping the network society but also giving the impetus for leveling of cultural boundaries and changing the role of the nation state as such. The core concept of modernization theory, according to Inglehart and Christian Welzel (2010), “is that economic development produces systematic changes in society and politics. If so, one should find pervasive differences between the beliefs and values of people in low-income and

high-income societies”. The main difference between Sweden and Lithuania, in this respect, is that Sweden belongs to the category of high-income societies, whereas in Lithuania the general income of population is much lower. Thus, we may expect that the values and beliefs as well as general cultural conceptions in some respects may differ as well.

On the other hand, the advance of the network society, new media and digital technologies makes the communication much easier, if only to mention the Internet. There is a wide range of cooperation between the two countries nowadays, especially in the fields of economy, business, politics, education, culture, etc. Thus Sweden and Lithuania are becoming more and more similar because both countries are affected by the same international trends, like globalization and the growth of digital technology. Moreover, the similarities between young people in Sweden and Lithuania are more striking than differences in terms of life styles, popular culture and use of digital technology. But, still, there are lots of differences between the countries due to historical circumstances and socio-economic reasons.

Technological infrastructure

According to the results of *Speedtest.net*, Lithuania is among the countries having the fastest Internet connection in the world. Comparing the Household Download Index, Lithuania occupies the eight position followed by Sweden in the tenth position among the top ten countries with the fastest Internet download speed in the world (Household Download Index 2013). Thus, comparing technological infrastructure of both countries, it seems that both countries have the equal opportunities to develop the media literacy of the populations. But the access to technology does not automatically guarantee the changes in education and socio-economic life.

If we compare the practical implementation, usage, online activities of the populations under study, the differences are clearly visible. In Sweden, people of all ages have to use the Internet if they want to manage their everyday lives (Findahl 2013). In Sweden it would be difficult to live without a constant connection to the Internet. This creates serious problems for population groups that are not regular users of mobile telephones, the Internet, and other new digital devices. In Lithuania, though more and more services are being transferred online, still both types of services – online and off-line – are functioning at its full, mainly because of the digital divide. The elder generation, especially the segment which is 65+, would not be able to “move online” without the help of the young.

A case study of Sweden and Lithuania regarding media literacy and digital divide

According to the study by Ronald E. Rice and Caroline Haythornthwaite (2006), the usage of “the new online, mobile and networking technology among the children and the young, is unprecedented in the history of technology”. As the data of other surveys indicate, children have always been among the leading groups in population,

regarding the Internet usage (Flash Eurobarometer 2008). 84% of the youngest age group respondents access the Internet at least once a day in EU (Special Eurobarometer 390 2012). There is a tendency observed that the general usage of the Internet among children is increasing every year.

What about the differences between Sweden and Lithuania? The data of the survey Special Eurobarometer 390 in the EU 27 countries (2012) reveal some differences between the countries which are going to be discussed in a greater detail. To start with, Sweden stands out as one of the countries in Europe, having the highest level of the daily Internet use by all age groups of the population. The proportion of respondents who access the Internet several times a day is really high (75%), in comparison to Lithuania (35%). In contrast, the proportion of respondents who never use the Internet is high in Lithuania (35%) as compared to Sweden (7%). Moreover, respondents in Sweden are more likely to be frequent Internet users (83% access the Internet at least once a day, compared to 50% of Lithuanian users).

The initial analysis has revealed the difference in one field – the internet usage, but it is essential if we are to describe the level of media literacy in the general populations. One of the main reasons to account for the observed difference, especially in case of Lithuania, is age. The high proportion of citizens that never use the Internet in Lithuania is clearly related to media illiteracy of the older generation. In general, people aged 55+ are much less likely than younger age groups to access the Internet, contrary to the group of children and teens, who are most likely to be intensive daily Internet users. Meanwhile the young generation in Lithuania is living and growing up in technology and data saturated world, the elderly only start introducing themselves to the Internet and digital environment. But, we are not able to assert that all elder people in Lithuania are media illiterate. It mostly depends on the level of education and occupation, as well as the place of residence.

To go deeper into the analysis, variations between online activities in Sweden and Lithuania have been drawn and are presented in Figure 1.

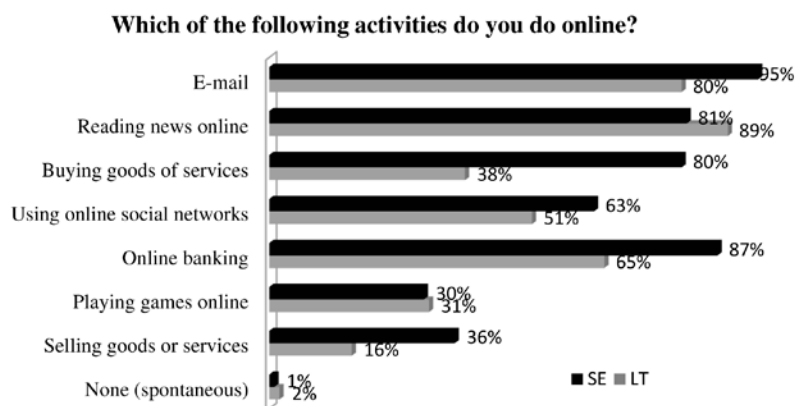


Fig. 1. Preferences of online activities in Sweden and Lithuania
Source: Special Eurobarometer 390, “Cyber Security”: Report (2012)

As could be seen from Figure 1, in both countries the vast majority of the Internet users use email (95% Sweden (SE) – 80% Lithuania (LT)). The only online activity in which respondents of Lithuania are leading is reading news online (89%). What is more, this score is higher not only to Sweden (81%), but is the highest in among 27 EU countries. This fact may indicate that there is the great potential for development of media literacy for senior citizens in Lithuania, as most of the newcomers to the Internet start from developing the habit of reading daily news online, which is attractive, free of charge and easy to access. So once they succeed with this, they may move forward and start using online banking, as well as be involved in other online activities. As we see from the chart, 65% of Lithuanian respondents use the online banking, but this score is lower if compared to 87% of Swedish respondents involved in using online banking. The greatest difference is observed comparing the activity of buying goods or services online. If 80% of Swedes are doing this, less than a half of this score – only 38% of Lithuanian respondents practice this activity. The reason behind this might be the lack of trust in online shopping and a relatively undeveloped local network of shopping online. The same could be said about another online activity – selling goods or services, 36% of Swedes are involved in this, compared to only 16% of Lithuanians.

The situation looks a bit different if we compare the activity of playing games online or using online social networks. Those are the activities usually taken up by the young population groups. And the results are different. We observe nearly equal scores 30% (SE) and 31% (LT) of respondents in both countries to be involved in playing online games and the difference of using online social networks between the countries is only 12%, with Sweden leading in this activity – 63% of active users, compared to 51% of users in Lithuania.

To conclude with the comparison of the data we may say that children and teens in both countries have grown up with the Internet and, therefore, use the Internet in ways that are different from adults, at least in Lithuania. While adults use the Internet for checking the news, looking for services, teens are more likely to use the Internet for online social networking and playing games online. This may lead to the supposition that the cross-cultural differences might be much smaller if we compared media literacy of only the youngest groups of population, namely the children and the teenagers in both countries. On the other hand, the data indicate that the main socio-demographic difference regarding the media literacy in case of Lithuania is age. It also shows that the digital divide between the generations in Lithuania is much wider as compared to Sweden.

To support the above raised supposition, it might be added that the recent survey conducted in Lithuania by the market research group TNS.It (2013), has revealed that smartphones have become the inseparable part of the young generation in Lithuania (9 out of 10 respondents have and use them). The same survey has revealed that the children aged 7–11 use their smartphones for voice calling, texting, playing games online and listening to the music, whereas the older children get involved into a lot more of different online activities, such as search of information, online social networking,

downloading apps, etc. Online social networks are used by 12% of children aged 7–11 and 30% of children aged 12–14. Downloading video and sharing via cell phones is the activity favoured by 7% of children aged 7–11 and 20% of children aged 12–14. Downloading apps – 28% of children aged 12–14, compared to decreasing numbers in the older age groups (24% in group 15–19 and 14% in group 20–29 respectively) (TNS.lt 2013). This survey indicates that children and teenagers become more and more active users of the smart devices from the young days and thus acquire the skills of media literacy. We may only predict that with time the cross-cultural differences in online activities of the young generation will be much more similar than different. Unfortunately there are no cross-cultural surveys between the two countries regarding the level of media literacy of the young accomplished recently, so we understand that our conclusions are only tentative, based on the data restricted only to the separate country level. But these conclusions open up the directions for further research in the field.

For the sake of comparison, we see that recent national representative surveys in Sweden (Findahl 2013) reveal similar patterns as in Lithuania regarding the use of the Internet among children and teens. Longitudinal research (1995–2013) conducted by Olle Findahl (2013), shows that it took ten years before the Internet reached preschool children. At that time, parents of young children had become daily Internet users. Computers and the Internet had become part of the everyday life. The clearest change in the past years is that the use of smartphones and tablet computers has spread among very young children. For the first time, the Internet habits of 3–4 years olds have been mapped in Sweden through the additional survey of parents with children between the ages of 2–13. Many of the children in this age group use different media devices, including over a third (37%) who use a desktop PC or laptop. This allows web surfing, watching TV or playing games online (Findahl 2013). Moreover, the national survey of 2013 has revealed the major changes in the Internet use among the children. Daily use of the Internet among school children aged 8–13 has significantly increased up to nearly 40% since 2011. Some daily activities are more common among young girls compared to boys, such as sending daily text messages and pictures, writing a blog, publishing photos (mobile), visiting social networks. Although all children, both, boys and girls, send a text or picture message using their mobile devices occasionally, young girls are more active than boys on a daily basis. Girls also use the Internet more than boys when they are on the move. However, the major difference between young males and females concerns blogging. Young females in Sweden have created their own world. More than half of the girls aged 14–21 are writing or have written their own blog. Digital gaming distinguishes young males in comparison with females. Males engage in gaming activities far more than females (Findahl 2013).

Respondents in Sweden (48%) are much more likely than those in other countries to say that they access the Internet while on the move. Internet users in Sweden (55%) are most likely to access the Internet via a smartphone, this number in Lithuania is much lower (17%), the use of a tablet computer or touchscreen is also the highest in Sweden (16% compared to 3% in Lithuania). In recent years the spread of tablet com-

puters has gained momentum in Sweden, and one in five Swedes (20%) nowadays use a tablet computer. The use among the young people between the ages of 12–15 is the most common. The higher is the income and the level of education, the more commonplace are the tablet computers (Findahl 2013: 2).

The major difference between Sweden and Lithuania is that Sweden turns out to be the top leading country in terms of implementing international Internet usage standards among the elders (Findahl 2013). In many other countries with a high average Internet usage, the difference between the elderly and the rest of the population is much bigger if compared to Sweden. The main explanation, according to Findahl (2013), is related to both economic and cultural values. The income inequalities in Sweden are not as high as in most other countries. Although many of the pensioners are not rich, still many of them can afford getting the Internet. In addition, Swedish pensioners are generally not conservative. They have a desire to keep up with the new technological developments in the society. Yet, the generation gap between the young people and the adults in terms of media literacy is still a problem in Sweden. As it was previously discussed, children and young people are involved in different online activities compared to their parents and the other adults, and hence, they get different experiences. In addition, despite nearly all the young and middle-aged people using the Internet today, there is still a group which remains excluded, those who do not use the Internet. It should also be added and it is important to consider that not all groups of people have the same probability of being selected and included into the national survey *Swedes and the Internet*. This applies to the groups of immigrants, poor people, the homeless and people who do not speak Swedish. Indeed, this is a part of the problem as well as the answer which population groups in Sweden are excluded and should be considered in terms of a digital divide in the society.

Conclusions

The case study has revealed that even in the digital age with the overwhelming networking and the scope of global cooperative problem solving, local cultural contexts and country-level factors do matter a lot. The research of Swedish and Lithuanian cross-cultural contexts has revealed that it is not enough to develop the technological infrastructure, which establishes the foundations for the digital culture to start spreading. More important is to ensure economic, educational and socio-cultural development of all segments of population. Thus, in regard to digital media literacy, age matters the most in case of Lithuania. Social-stratification and the level of economic development (low income of many segments in the population) is another important factor accounting for the digital divide – one of the reasons why the adult population in Lithuania is not yet fully involved in the daily use of the Internet. The higher level of economic development in Sweden (high income country) accounts for the ability of the adult population to acquire and use smartphones, tablet computers and touchscreens, access the Internet via a smartphone and integrate the new communication patterns into the daily life.

The digital generation – children and teenagers – have got much more in common in both countries as opposed to the senior adult population. They are already shaped by the digital participatory culture. The smart mobile devices have become the inseparable part and the daily use of the young. They use the smartphones for voice calling, texting, playing games online, listening to the music, searching of the information, online social networking, downloading apps. Females seem to be more active users, compared to males. Young females, especially in Sweden, are involved in writing blogs, whereas young males are engaged in digital gaming.

The digital divide by age is not so wide in Sweden, because the habits of computer use have got a bit different history. Computers and the Internet had become the inseparable part of the daily life of adult population in Sweden prior to children and teens getting obsessed by information technology. Thus, the biggest recent change in Sweden is the huge increase in the use of smartphones and tablet computers by the very young segment of population. Another big difference between Sweden and Lithuania is that Sweden is leading in the implementation of the international standards regarding the Internet use among elders. Here lies the difference, as the senior segment of population in Lithuania is among the least digital literate. The main reasons accounting for that are related to both economic and socio-cultural values. The income inequalities in Sweden are not as big as in most other countries, Lithuania in particular. Consequently, Swedish pensioners are engaged in life-long-learning and are keen on keeping up with the technological developments in the society. Still, the problematic groups in Sweden, in terms of media literacy and digital divide, remain the socio-economically marginalized groups, mostly immigrants or unemployed people who are not so keen on fast digital integration and thus remain excluded from the latest developments of the network society.

Thus the generation gap or digital divide in terms of media literacy remains especially vivid in Lithuania. Paradoxically, but children and young people are among the top users of smart technologies and new media, whereas the older generation, which provides the conditions for the children to master new technologies, is lacking behind. On the contrary, in Sweden the digital divide is the widest among those segments of population who are in unfavorable economic and social conditions. Digital exclusion, on the other hand, hinders the faster integration processes into the new information society.

References

- Aarsand, P. A. 2007. Around the Screen: Computer Activities in Children's Everyday Life, *Linköping Studies in Arts and Science* 388. Linköping: Linköping University.
- Aarsand, P. A.; Aronsson, K. 2009. Response Cries and Other Gaming Moves: Building Inter-subjectivity in Gaming, *Journal of Pragmatics* 41(8): 1557–1575.
<http://dx.doi.org/10.1016/j.pragma.2007.05.014>
- Alexandersson, M.; Limberg, L. 2012. Changing Conditions for Information Use and Learning in Swedish Schools: A Synthesis of Research, *Human IT* 11(2): 131–154.

- Bard, A.; Söderqvist, J. 2002. *Netocracy: The New Power Elite and Life after Capitalism*. London: Pearson Education Limited.
- Carlsson, U. 2010. *Barn och unga i den digitala mediekulturen*. Göteborg: Nordicom.
- Castells, M. 2010. *The Information Age: Economy, Society and Culture*. Vol. 1: The Rise of the Network Society. Malden, MA: Blackwell Publishers Inc.
- Centre for Media Literacy. 2011. *Media Literacy: A Definition and More* [online], [cited 15 December 2014]. Available from Internet: <http://www.medialit.org/media-literacy-definition-and-more>
- Commission of the European Communities. 2009. *Media Literacy* [online], [cited 10 April 2014]. Available from Internet: http://ec.europa.eu/avpolicy/media_literacy/index_en.htm
- Dunås, J. 2013. *Media and Information Literacy in the Nordic Countries*. Swedish Media Council and NORDICOM. Stockholm: Nordicom.
- Findahl, O. 2013. *Swedes and the Internet*. Stockholm: Se/Internetstatistik.
- Flash Eurobarometer. 2008. *Towards a Safer Use of the Internet for Children in the EU – A Parents' Perspective*. Luxembourg: European Commission [online], [cited 16 May 2014]. Available from Internet: http://ec.europa.eu/public_opinion/flash/fl_248_en.pdf
- Household Download Index. 2013. [online], [cited 16 May 2014]. Available from Internet: <http://www.netindex.com/download/allcountries/>
- Inglehart, R. 1999. Changing Values in the New Millennium: Challenges to Representative Democracy. Conference on *the Future of Representative Democracy*, Umeå University, Sweden, October.
- Inglehart, R.; Welzel, Ch. 2010. Changing Mass Priorities: The Link between Modernization and Democracy, *Perspectives on Politics* 8(02): 551–567. <http://dx.doi.org/10.1017/S1537592710001258>
- Levinson, P. 2013. *New New Media*. London: Pearson Education Limited.
- Livingstone, S.; Helsper, J. E. 2013. Children, Internet and Risk in Comparative Perspective, *Journal of Children and Media* 7(1): 1–8. <http://dx.doi.org/10.1080/17482798.2012.739751>
- Manovich, L. 2001. *The Language of New Media*. Cambridge, London: MIT Press.
- Matsuyama, T. 2010. *i-Energy: Informationization of e-Power Flows by Integrating Information and e-Power Networks* [online], [cited 19 May 2014]. Available from Internet: http://i-energy.jp/data/i-Energy_revised.pdf
- O'Brien, M. 2011. Is Technology Wiring Teens to Have Better Brains?, *PBS Newshour* [online], [cited 13 April 2014]. Available from Internet: http://www.pbs.org/newshour/bb/science/jan-june11/digitalbrain_01-05.html
- O'Neill, B. 2010. Media Literacy and Communication Rights: Ethical Individualism in the New Media Environment, *International Communication Gazette* 72(4–5): 323–338. <http://dx.doi.org/10.1177/1748048510362445>
- Palfrey, J.; Gasser, U. 2008. *Born Digital: Understanding the First Generation of Digital Natives*. New York: Basic Books.
- Rice, E. R.; Haythornthwaite, C. 2006. Perspectives on Internet Use: Access, Involvement and Interaction, in Lievrouw, L. A.; Livingstone, S. (Eds.). *Handbook of New Media: Social Shaping and Consequences of ICTs*. London: SAGE, 92–113.
- Säljö, R. 2010. Digital Tools and Challenges to Institutional Traditions of Learning: Technologies, Social Memory and the Performative Nature of Learning, *Journal of Computer Assisted Learning* 26(1): 53–64. <http://dx.doi.org/10.1111/j.1365-2729.2009.00341.x>

Sjöblom, B. 2011. Gaming Interaction: Conversations and Competencies in Internet Cafés, *Linköping Studies in Arts and Science* 545. Linköping: Linköping University Electronic Press.

Special Eurobarometer 390, “Cyber Security”: Report. 2012. *Special Eurobarometer 390 / Wave EB77.2 – TNS Opinion & Social 2012 Report* [online], [cited 8 April 2014]. Available from Internet: http://ec.europa.eu/public_opinion/archives/ebs/ebs_390_en.pdf

TNS.lt 2013. *Mobiliasias programėles daugiausiai siunčiasi vaikai* [online], [cited 12 May 2014]. Available from Internet: <http://www.balsas.lt/naujiena/735987/tns-lt-mobiliasias-programeles-daugiausiai-siunciiasi-vaikai>

Woolsey, K. 2005. *New Media Literacies: A Language Revolution*. Chicago, Cambridge: University of Chicago and MIT.

MEDIJŲ RAŠTINGUMAS IR SKAITMENINĖ ATSKIRTIS: ŠVEDIJOS IR LIETUVOS TARPKULTŪRINIO ATVEJO TYRIMAS

Vilmantė LIUBINIENĖ, Daniel Persson THUNQVIST

Santrauka

Švedijos ir Lietuvos tarpkultūrinio atvejo tyrimo tikslas – išanalizuoti visuomenės medijų raštingumo lygmenį atskirose socialinėse grupėse. Siekdami atskleisti pagrindinius veiksnius, lemiančius gyventojų grupių skaitmeninę atskirtį, atsižvelgėme į socialinės stratifikacijos ypatumus, technologijų infrastruktūros, švietimo sistemos ir kultūrinių vertybių prioritetų skirtumus abiejose šalyse. Atliktas tyrimas atskleidė, kad Lietuvoje amžius yra pagrindinis veiksnys, lemiantis medijų raštingumo lygmenį. Tačiau Švedijoje medijų raštingumo gebėjimai įvairiose amžiaus grupėse vienodėja, nors į skaitmeninę atskirtį patenka imigrantų grupės, daugiausia dėl socialinių ir ekonominių priežasčių. Skaitmeninė karta – vaikai ir paaugliai – abiejose šalyse turi panašius skaitmeninius gebėjimus, todėl skaitmeninė atskirtis aktualesnė vyresniojo amžiaus gyventojų grupėse.

Reikšminiai žodžiai: skaitmeninė kultūra, skaitmeninė atskirtis, skaitmeninė karta, medijų raštingumas, tinklaveikos visuomenė, socialinė stratifikacija.