Using an Information Ecology Approach to Identify Research Areas

Findings from Lithuania

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GLOBAL
IMPACT STUDY

THE GLOBAL IMPACT STUDY

This research was conducted as part of the *Global Impact Study of Public Access to Information & Communication Technologies*, a five-year (2007-2012) project to generate evidence about the scale, character, and impacts of public access to information and communication technologies. Looking at libraries, telecenters, and cybercafes, the study investigates impact in a number of areas, including communication and leisure, culture and language, education, employment and income, governance, and health. The Global Impact Study is implemented by the Technology & Social Change Group at the University of Washington Information School with support from Canada's International Development Research Centre (IDRC) and a grant to IDRC from the Bill & Melinda Gates Foundation. Learn more at **globalimpactstudy.org**.

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Using an Information Ecology Approach to Identify Research Areas: Findings from Lithuania

INTRODUCTION

The material presented below is related to the experiences and findings of exploratory fieldwork activities carried out in Lithuania for the *Global Impact Study of Public Access to Information and Communication Technologies*. The main objectives of this exploratory fieldwork are related to collection of background information and data on practices of usage of public access to ICTs on the basis of which research questions could be generated. Also, this activity has objectives of piloting both certain research approach and instrumental aspects of research development. The activity was both descriptive and exploratory. Having in mind the overall objectives of the project the following research questions were formulated for this initial phase:

- What role(s), that public venue ICTs play in the communities of users, can be identified at present? What problems are visible in their operation?

- Are there any obvious differences in the ways of operating and using the public access ICT in different sites (e.g., rural/urban, solitary/one of several, big city/small town, library/internet café, etc.)?

- Who are the main users of the public ICTs? What are their purposes and practices of using public access ICT's?

- What is the general information usage context, into which the public ICTs use is embedded?

The general approach of the exploratory research emphasise the phenomenological approach towards the measuring social impact of public access to ICT aiming at disclosing the affect to experiences of individuals and communities.

METHODOLOGY

The main fieldwork was carried in July, 2008 by the Lithuanian country research team members and representatives of S4ID, private company, responsible for project coordination in Lithuania. During one month, approximately one half of time was dedicated for the preparation and data collection and the rest half – for data analysis. In total, seven persons were involved in preparation, organisation, data collection and processing, analysis and report writing.

For the selection of sites, the following main criteria were applied and combined: rural/urban location, type of a venue (library, community center, other), availability of alternative access, and location in different regions. Also, experiences accumulated from earlier studies, knowledge of certain places was an important matter in this study (e.g. date of establishment of a venue, participation in certain projects, personal relations, and etc.). However, usually in July, most of public access to ICTs venues are

closed for summer holidays, therefore an agreement and willingness to participate in the exploratory research was an important factor in the final selection of the study venues. For the selection and contacts with the public access venues to ICTs, a primary list from previous initiatives of the establishment of public access venues was used (namely, Window to the Future, PHARE project on development of Rural Internet access venues, etc.) as well as primary list for the Inventory of the venues.

The following six internet public access venues were visited at different places of Lithuania: one internet café, one library (urban areas); two libraries, one community centre, and the smallest municipal administration unit (rural areas).

CHARACTERISTICS OF SITES

Cities

Site 1: The internet café is in Panevėžys, the fifth largest city of Lithuania, located in the Northern part of Lithuania, with a population around 114 thousand. Three other internet cafes operate in other places of city (namely in several shopping centres). Also, free public access to ICT is available in public library and its branches.

Site 2: The urban library visited is in Alytus – the largest town in the southern region of Lithuania, with a population around 67 thousand. Besides the library, free public access to ICT is available in business development centre, women centre and youth centre, several internet cafes operate.

Rural/Small Towns

Site 3: Public library in a small town Daugai (Alytus region), which has population circa 1,5 thousand. Administratively, it is not to be defined as a rural area, however, the lifestyle and the infrastructure is rather rural than urban. The library is located in the former manor premises, close to a lake. It is kind of a resort, tourist area.

Site 4: The fourth venue is located in Paluknys (Trakai region, southeast part of Lithuania), at the premises of the smallest municipal unit (seniūnija), which also has a post office. Paluknys has over 7 hundred residents and is located 30 kilometres from the capital city. This is a rural area.

Site 5: The community centre visited is located in a small town Ežerėlis (Kaunas region, central part of Lithuania), with around 2 thousand residents and close to the second largest city of Lithuania. This site could be identified as one of the progressive leaders in the community development and ICT use on the community level, it also has local network, to which most of residents are connected. Both community centre and library have public access to internet and ICTs.

Site 6: The last visited venue is in Linksmakalnis (Kaunas region, central part of Lithuania), at a local public library. A site with 9 hundred residents is defined as a rural area. The public access to internet is located at local public library which is in the premises of an educational establishment and is the only publicly available internet access venue. The premises are extremely small.

In all rural areas visited, the main employers are public institutions (such as educational establishments, municipal units, post, medical office, etc.). Only very few private companies operate there (such as car service, shops, farmers). Most people go to the closest towns for work. The population is getting older as young people move for studies and work to urban areas.

DATA COLLECTIONS TOOLS AND PROCESSES

In total six venues were visited, in which observation, individual interviews with staff and users, and group discussions were carried out. In total, 31 interviews were carried out, of which 8 with representatives of staff or establishment, and 23 with users. 4 group discussions on practices of information usage with local population were carried out (each group included from 8 to 11 participants).

The group discussions took place in four sites visited, mostly in rural areas. The public access venue staff and other local residents identified through any organisations (e.g. community leaders, teachers) were contacted in order to invite local people for discussions. However, due to a short time for organisation, in most cases only two local representatives assisted in selecting participants. In order to moderate their possible influence (such as inviting their friends, family members or any too close persons), attempts were made to make heterogeneous groups while applying the following criteria: venue users and non-users; different age, gender, occupation; those who use ICTs at their work and those who do not use ICT at their work.

The composition of groups turned to the following patterns: in two groups women of different age and occupations comprised the majority and only few men came; the non-users of ICT at the public access venue were mainly "former" users; in one group teenagers (both male and female) as active users of the public access venue comprised the majority; the fourth group was the most heterogeneous with regard to all criteria. The retired or elder age persons were reached by individual interviews.

For the data collection the following instruments were used (see Annex 1, Instruments for the exploratory research):

- Direct observation – the guidelines for the venues' visits provided by the Information School of University of Washington

- Interview guidelines with the representatives of the establishers of the public access venues

- Interview guidelines with users

- Guidelines and structure of group discussions with users.

While collecting the data for the exploratory research, the main focus was on the following sections of information:

- Characteristics of public access venues

- Their users, uses and activities

- Users' information and communication sources and practices

Specific information on community and its characteristics was not collected systematically (in series) in all the venues. Therefore, only generalized observations on community characteristics, community information/communication needs are available.

Interviews were audio recorded. Photographs were taken with permission of visitors and employees (see some pictures in Annex 2, Pictures from the venues visited).

FINDINGS

Characteristics of Public Access Venues

All visited venues are centrally located. Their operating hours coincide with the working hours of the majority of users (usually opened from 9 a.m. to 6 p.m., Monday – Friday), except a privately owned internet café that is open till 9 p.m. In rural areas the public access venues are small, the computers are very close to each other, there are no dividers and this leads to a low level of privacy. The number of computers ranges between 3 to 6. The internet café is situated in a separate small house and occupies two rooms. It has 11 computers in two small rooms, one of which is dedicated for children activities (7 computers). In the café, two places are a bit separated with small dividers.

All services in the internet café are paid, in the other places – internet access is free (in all other places extra time is to be charged, but not always; in most cases a limit of one hour is applied in case of people waiting for the access and is applied as a mean for children control), but other services are paid (printing, scanning, etc.).

The majority of venues was established three-four years ago and maintain the same computers and furniture. Though webcams and headsets are available, in three places they are not operating or used. Usually only few computers have full office (mainly Microsoft, Windows (98, XP)), the rest provide only internet and several programs. During the pilot investigation, no Open Office programs were observed. The internet is always on, although in some places it is extremely slow. Printers and scanners are available in all venues visited, some have copy machines.

Only the internet café has no limitations for the work with the internet – one can download files, install programmes, etc. whatever is needed. The staff recognizes the risk of having illegal programs, but they clean their computers on a regular basis. The free public access ICT venues limit the use of computers rather strictly – in most cases, one cannot install or record anything and has limited use opportunities except for the internet searching. The rules set for the venue limit the users' activities related to the creation of the content. However, the computers are not well supervised (e.g. viruses, re-installing, etc.).

In urban areas, other public accesses ICT are available (including free and paid). In rural areas, in most cases, the visited venues are the only available public access points. In some places other venues operate (community centre, library), or internet access is available at schools or municipal administration, however, the usage there is not public. It is directly related to working or studying at the

school, however, some members of the public having close relations with the staff in these organisations are allowed to get limited access.

The internet café visited is a family business, where father and son work. They have not hired any other staff for more than two years. This café has clients, though their number diminishes in summer significantly; still, some developments of the venue are planned for the nearest future.

While searching for an internet café it was noticed that in several last years, the number of internet cafés, providing a paid service, has decreased. The staff of the public access points relates this fact to the increasing purchase of personal computers and the penetration of internet connection to private households (stimulated by such measures as tax refunding, etc.). In the urban areas, the former internet cafés were closed or became an additional service to some activities. This issue was followed up in the framework of this research by visiting several internet cafes in Šiauliai – the fourth biggest city in Lithuania. It was difficult to find an operating internet; however, some of the former owners were interviewed. One of former owners of the internet café at the moment has a copying centre, with a service of the access to internet; public access points are established in the computer shops; mainly used by adults for quick reference and e-mailing and by students for print outs etc. Most of these sites are discouraging children's use in various ways.

Staff Observations

The data of the exploratory research as well as earlier observations and studies imply that activities and operation of the public access ICT is very dependent on the staff's competence. In general, the staff is supportive and friendly to the clients; however, they lack technical skills and knowledge required for exploitation of computers, information search and retrieval, working with various software packages, especially foreign languages and computer maintenance. Middle age women dominate among the staff of the venues, except the internet café, where men work. According to the staff, they help their users, but situations when they are unable to assist happen (e.g., knowledge of open office programs and other possibilities is very low).

In rural areas, informal, personal relations prevail. This can be illustrated by an example at a visited venue in Paluknys village. A tutor is well acquainted with the students' or others' need for the internet. She sometimes comes to the venue on Saturdays (officially closed) and in these cases. She calls and invites the users for several hours to use the venue while she is there.

In cases when programs for the community are organized, they are not directly related to ICT, and are rather traditional cultural events such as exhibitions, "readers" or other clubs gatherings, meetings, etc. In most cases, user training activities took place in other premises (mainly schools) and were organized by other institutions (educational or municipal) several years ago (in most cases just after the establishment of a venue).

The promotion of the venues is poor (with the exception of urban libraries that have strategic approach towards their promotion), but was much more intensive at the time of the establishment (posters, ads, personal invitations). At some sites, there is a small poster of the initiating program (e.g. Window to the

Future), usually near the door or first window by the door (see some pictures), but more frequently "you should know exactly the place" - at what institution / building the public access to ICT is available (for example, there are no signs such as "@" in the sites visited).

The main challenges named by the staff relate to their competence (need for training, qualification), training for users, space problems (more room), maintenance and renewal of the computers, updates of anti-virus programs (treatment of viruses, illegal installations), etc. In some cases, more computers were mentioned.

The other apparent challenge is the attraction of non-users or "mediated" / "passive" users, i.e. those who are now served by their children, friends, etc. This is especially challenging in the context of decreasing number of the use of the public access venues.

Venue Characteristics

Users are not registered except in the urban libraries that in some cases have special programs for filtering and registering of activities and users.

The staff representatives used to register the users during the first years of operation of the venues as the means of reporting to the donors or stakeholders. No exact data is identified at the moment. All representatives maintain that summer is a "dead season", in winter there are many more users. Still, it ranges between a few visitors a day, to 10 a week. In one rural venue (Daugai) the research team was told that in summer season about 200 visitors come, including tourists, guests, students from summer camps, etc. At the beginning of the operation, about 300-400 people used to come to the venue.

During the visits, the venues were not crowded; in some places they were totally empty, apart from the invited people. If the staff is on vacation, the venues are closed.

All the staff and stakeholders as well as users interviewed maintain that in general, in the last few years, the average number of users and use has been decreasing. This decrease is related to the fact that the former users–children have grown up and have their personal computers and internet that decreases the use of public access venues by their parents and relatives, too. Queuing or registering in advance is a phenomenon of the past. Now it happens only at some deadlines, i.e. dates of tax declarations, or school holidays, other children activities, etc.

The first users of the public access venues were those who had some idea about ICT or were already computer literate users (mainly school children). The adults were attracted by an opportunity to learn to use computer first, and Internet afterwards. A significant attraction to the public access venue was and still remains a free access to ICTs.

At the beginning of the operation of the public access venues, some concrete need became an incentive to learn using the ICT (e.g. employment, communication with relatives or friends who live at a longer distance). Free training courses organised by other institutions (educational, municipal in most cases) played an important role.

With regard to public access ICT at libraries, both rural and urban, the users of the ICT were library users first, and then became users of the public access ICT. In small localities, informal contacts play a significant role as it is easier to get the introductory instructions, encouragement and even access. In many cases, the staff who works as mediators between users and ICTs, plays a gate-keeping role that may have both negative and positive impacts: some groups are more favourably welcomed than the others (in some cases visits/activities of children, in others of elders (retired persons) or any other socially vulnerable groups (e.g. representatives of libraries often mention poor persons as unwelcome because of their smell) are discouraged at the venues).

At the internet café visited, 50 per cent of users are children, 50 per cent – adults. Children tend to spend as much as possible time at the internet – approx. 2-3 hours; « have–nots » or those whose parents limit their time spent at the internet at home. In case of adults, the majority comes for 3-5 or 10-15 min, exactly knowing their objective, which in most cases deals with email, sales pages (especially, cars, trucks, etc.); in few cases social network pages, photos, etc. In general, at a day of visit, we met very few of those, who have no computer or internet at home. The majority have either one or both, but come here in case of problems with the internet (the venue is closed; café is on their way and they have certain free time). The internet café is an alternative source for the ICT in case of problems.

The exploratory research shows that a significant part of the users of public access ICT are children playing multi-player games and youth involved in chat activities with their peers. However, the rules of the public access to ICT points limit the scope of children' activities. The majority of free public access points do not let the users to create the content (install the programmes, to save their materials, to record them, manipulate with sound and view, share their material, etc.). Children interviewed indicate, that along with playing and searching the internet, they try to install some programmes (not necessary legally) in order to download music, other material or, e.g. to create some videos. Still, it depends on the supervision of the public access. According to children, in most cases they easily manage to install certain tools and to remove them at the end of their session.

Children tend to use their own or school's computers for their homework, but would like to expand their activities at the public access venues, especially because of the fact that they could spend their time here together. However, they note lower speed of internet and worse technical characteristics of the computers at the public access venues in comparison to their personal, family computers or those at school.

In all other public access ICT venues, children comprise around fifty per cent of users. Also, relatively younger people dominate such as students or middle age people (farmers, businessmen). In some venues the staff maintained that the seniors do not come and "they do not need", but in some the staff mentioned the opposite trend: as the majority of children have a computer at home, the number of adults and seniors is increasing.

The older people who were interviewed also express their interest in using ICT and internet. They mention a significance of targeted teaching that relates to pace of learning and is tailored for a group of

people with similar skills and interests. Also, an opportunity of constant consulting is important for them, as well as public space for communication and exchanges.

Characteristics of Activities

No significant differences between the urban and rural users and uses have been observed during the exploratory research. However, the urban users have more alternative sources of both free and paid access. For example, in Public Library of Alytus City, we interviewed a retired teacher, who during the week visits all four available free public access venues in town, as she puts it, "in order not to bore the staff", and as an access session has a symbolic one hour limit, if more people are waiting for it. She has a computer at home, but no internet. However, this active woman, who writes articles to the newspapers, prepares school children for the competitions, compiles books, etc., is rather an exception than a rule. For this woman, visits to public access venues are of a strong social importance (getting out from home, meeting people, etc.).

The data of the exploratory research indicate that the public access ICT is an alternative for the present users of ICT. The « have-nots » comprise a minority of the users. The majority of present users come to the public venue when facing problems with their computers, internet, or being close to the a particular place generating specific information needs. E.g., in one rural area a user told a story: an auto repair works is close to the venue. When some detail is needed, the drivers rush to the venue to check, where (at what distance) it is available in order to avoid unnecessary drive to the nearest town. Besides the internet, additional services create an added value of the venue – it is widely used for printing, copying, scanning and other technical opportunities. In rural places, this is the only venue providing such services.

The users make distinction between the activities related to ICT at their homes or at their friends/ neighbours and at the public access venue. They choose the latter for the less private activities, because nearly everybody could watch the content of the activities without any efforts. For example, in most cases, Skype is used only for chatting at the venues and for calling/talking at home. At the internet café, some of the users search the web pages that they treat as irrelevant at home (getting acquainted, chats, etc.).

Only in very rear cases, the venue creates some screens or make other divisions of the space. E.g., in one rural venue, a special screen was created for a disabled man who comes to search for porno sites. He was identified through the screening filter and special conditions were created for him.

In general, at the public access ICT venues, children tend to play, search for information for their interests, Google, look for their hobbies, school activities or projects, communicate (email, chat), look for new friends, take part in forums, in some places, load on the photos, look for some programs, etc.

Adults most often communicate, search the internet ("googling"), look for the information of their interests (recipes, fishing, auto, basketball, agriculture, etc.), make tax declarations, look for selling and buying, prices, information about various institutions, media, e-banking, taxes, etc. In general, ebanking is treated as the most contradictory activity – the advanced users take all the advantages of it (save

time, money, do it in any time), but the majority is afraid of using these services – they do not trust their abilities to perform everything correctly and the security of the pages.

One of the interviewed users referred to her experience of e-mail that she started using when her children were away and the joy that she experienced not only from communication itself, but also from the process of learning.

At present most of the public access ICT venues that were established three-four years ago become stagnant: the equipment is aging, speed of connection is higher at home, the help is available from elsewhere (not from a librarian or a curator), home access is more comfortable and gives more privacy.

In most cases, the information found (in most cases Google) is printed out and not saved in one or another way (in most cases one cannot use any memory tools, therefore printing is so important). According to the respondents, e-books are not popular, people tend to choose paper magazines, newspapers or books, while arguing on habit and eye protection. However, only very few e-books are available in Lithuanian language. Internet radio is much more popular than internet TV, because it is not convenient to watch TV on a screen that is too small. Some of the users download movies and music.

In general, the ICT users interviewed, evaluate their skills positively, the majority tends to maintain that they know almost everything they need for their activities.

Community information and communication sources and practices

The group discussions with the users of public access venues and the residents of the sites visited focus on their information sources and practices of information and communication. The following findings from these discussions are discussed below.

For the majority of people interviewed, both users and non-users of the venues, ICT is an important source of information in all areas, however, the pattern differs among the advanced users and primary users. Even if a person is a non-user him/herself, s/he is used to ask children or friends "to look at their internet". This passive / mediated use in some observed cases became an incentive for a direct use.

To some extent it is possible to conclude that in rural areas local informal channels of information prevail or are very important for people. Also, in rural areas, sources of a more "passive" search of information prevail, e.g. paid informational telephone numbers (that are relatively expensive; an average call costs an average hour at the internet café) – "you call, you ask and they search". During the group discussions, different situations were mentioned addressing this number, e.g. in order to know working hours of a specific institution; to find a clinic at which a specific medical doctor works; to get information about the biography of Mozart, availability of commodities and services, traffic schedules, regulations, etc. The opportunity to get information to one's mobile phone as a sms is admired by the majority of users of this service.

The channels of trust differ depending on the issues. During the group discussions with the users of public access venues and the residents of the sites visited, four spheres were addressed such as health, employment, finances and education.

With regard to employment (searching for a job), acquaintances and ads in local newspapers seem to be more reliable than the internet. The main arguments are related to the timely update of information, which is treated as less effective regarding internet: most people are disappointed by the internet (employment ads), they prefer friends/acquaintances or labour exchange. In case of education, the following activities are mentioned: need for certain documents and information, participation in certain programmes and projects, foreign language courses, driving license, celebrations and other public events. Students or their parents mainly focus on further studies and in this case annual catalogues (e.g. "Where to Study") in printed form compete with the information on the internet intensively, although it is recognized that the internet refreshes information earlier. Printed catalogues are recognized as more comfortable ("you can compare several pages"). With regard to certain information, e.g. preparation for participation in certain projects, competitions, internet sources appear along with teachers, library and its staff. In case of need of professional information, the respondents mention colleagues, internet, and printed media. Information on participation in certain projects, programmes is attained through friends, searching done examples, seminars and internet. In case of driving license, the information retrieved through the internet (lists of schools, statistics), is cross-checked with friends, neighbours and advertisings in order to get knowledge on the quality of service. The same is elaborated on language courses, as recommendations and impressions of other people are of a great importance in choosing certain service.

With regard to experiences and practices with financial operations the following findings could be discussed. Most dominant operations are money transfers, leasing, loans, declarations and shopping. In most cases, taxes are mostly paid at the post offices, except by young people or advanced users of ICTs, other respondents who participated in exploratory research are not acquainted with the procedure and difficulties to change habits are observed. For example, in case in leasing, along with information on the internet, other sources of information such as banks, certain stores and advertising, prevail. In case of loans, recommendations and experiences of friends, acquaintances are often mentioned. In case of shopping, more important sources are TV and other shops, as well as friends. Only in case of declarations (tax, property), internet is defined as the most convenient source of information and way to perform.

During the group discussions, issues related to health were most widely elaborated and emotionally discussed by the participants. The following topics respondents indicated as most interesting and necessary: information on medicines, diseases, and certain specialists; nourishment and eating habits, and other practicalities. In case of diseases (both related to one and others), medical doctors, internet, information on researches in printed media and television are listed. In case of information on medicines, along with medical doctors, internet, magazines, booklets, and pharmacists are an important source. Information about certain medical doctors is searched through paid information phone numbers, recommendations of friends, neighbours, doctor's office. Other practicalities are widely discussed and shared with family members, relatives, friends and other social networks, and all the sources of media used. Commercials are often mentioned as an important source of information related to health issues.

Also, several models of using different sources of information could be distinguished depending on the skills, practices, and emotions. At first, own sources are checked or looked through. E.g. a woman told a story how she looked for a anniversary/birthday greeting. First, she made an inventory of her private cuttings, books, then turned to her friends' materials, later on went to library and then used the internet. The others "google" first and only in tough cases use some other sources. The others tend first to ask for some information their friends or colleagues who recommend or even help to search the internet.

However, the "advanced" users of ICT tend to treat internet as one of the sources of information, through which the information is cross-checked. Also, they provide critical remarks on the content available on the internet: e.g., in case of anniversary greetings, one can find the most popular, common, not distinct greetings; doubts are expressed regarding timely update of information, reliability of sources, etc. Another problem mentioned relates to the lack of certain skills: "If you need something special, specific information, "google" is not enough; one should know how to search". Along with the internet and other ICTs, other sources of information are used such as books or social communication. Sometimes it depends on the nature of the information need and sometimes someone the fact that some habits and attitudes are resistant to change and adaptation to new opportunities.

IMPLICATIONS OF THE FINDINGS FROM THE EXPLORATORY RESEARCH OF PUBLIC ACCESS VENUES

The analysis and generalisation of the data collected through the exploratory research of public access venues in Lithuania provides with the following findings and conclusions as answers to the initially formulated issues:

What role(s), that public venue ICTs play in the communities of users, can be identified at present? What problems are visible in their operation?

- The pilot background research provides the material that implies a significant contribution of public access ICT venues to the development of ICT skills of their users (they start using ICT at the public access venue or they develop their skills further) and purchase a personal computer and internet access.

- In the last few years, the average number of users and use has been decreasing at the public access venues, including the decrease of private internet cafés all over the country.

- However, it is not entirely clear if this decrease in use shows that public access ICT venues lose their significance for the local communities. The background research also paints an image of standard shortcomings and problems within each visited public access ICT venue, like lack of long-term strategy and planning for public access ICT, inconvenient placement and access times, lack of maintenance, shortage of competent supervisors, speed of internet, challenges attracting new users, etc.

- Attraction of non-users or "mediated" / "passive" users could be identified as the main challenge of operating at present public access venues.

Are there any obvious differences in the ways of operating and using the public access ICT in different sites (e.g., rural/urban, solitary/one of several, big city/small town, library/internet café, etc.)?

- There are no significant differences with regard to how public access ICTs are operated in different sites. All venues encounter the same problems and shortcomings in relation to staff competence, aging equipment, work organisation and strategic planning.

- The public venue ICTs as a rule operate as the only public ICT access point in the area, while the ones in the cities usually have more competition. However, this does not influence significantly the numbers of the users or the ways to operate the venues.

- More commercially oriented venues (like internet cafes) tend to have longer and/or more convenient working hours.

Who are the main users of the public ICTs? What are their purposes and practices of using public access ICTs?

- The data imply that for the majority of the users, public access ICT is rather an alternative venue / place for ICT use than a main place for the ICT use of the "have-nots".

- The fieldwork research also shows that despite diminishing numbers of the users the whole range of inhabitants (from children to elderly persons of different occupations and social status) are visiting public access ICT and some of them see an increasing potential of those for the communities. These statements address the development of abilities to respond to certain community needs for information timely and in relevant forms. Finding the ways to overcome perceived and prescribed irrelevance of certain groups (e.g. elderly) in relation to public access ICT venues may stimulate change of attitudes and behaviour.

- One half of the users in the public access ICTs are children. They mainly use the venues for playing games and chatting. They usually express more needs but the constraints on the use and rules limit their possibilities.

What is the general information usage context, into which the public ICTs use is embedded?

- For the majority of people interviewed, both users and non-users or mediated / indirect users of the venues, ICT is an important source of information that is handled with varying skills and trust. The increased positive attitude towards the ICT use in everyday life may be one of the strongest outcomes of the public access to ICT.

- The "advanced" users of ICT tend to treat internet as one of the sources of information, through which the information is cross-checked, and provide critical remarks on the content available on the internet.

- The distinction is made between the activities related to ICT at users' homes or at their friends/ neighbours and at the public access venue. The public access venue is chosen for the less private activities.

- The empirical data from this background research and other studies carried out in Lithuania show that rural residents using the internet at public internet access venues tend to be more active in community activities and perceive themselves as local community members. This

prompts to fostering social networking through the development of public spaces, which also might be equipped with ICTs and the gate-keeping phenomena may be taken into account when planning further study.

Evidently, there is a lack of research into the opinions of the users of the public access ICT and their views of the meaningful impact that communities and individuals experience through the availability of internet services.

REFLECTIONS ON FURTHER RESEARCH

In many countries the initiative of public access ICT (mainly internet) started in Sweden in 1985 was associated with the notion of general social benefits and closing of digital divide. As some researchers in other countries have noted, there were broad assumptions about implicit benefits of facilitated access, but „the more important goal of ensuring that access is meaningful for communities and individuals has slid off the agenda" (Strover et a. 2004:466). To some extent this flaw is present in the later initiatives, including the projects carried out in Lithuania. Because of that projects concerning the social and economic impact of public access ICT are meeting several problems.

Investigation of the social and economic impact of public access ICT can be conducted in several ways. Firstly, the impact may be measured in relation to the formulated goal and intended outcomes if they were clearly formulated. Over the years a number of initiatives related to the establishment of the public access to ICT in Lithuania pursued a variety of different goals. This was characteristic in other countries as well as may be seen from the research project into the public internet access in Australia (Sympson et al. 2004). In some cases they were not formulated clearly enough. Therefore, investigation on these lines seems to be rather complicated.

The impact may be investigated when the situation before the intervention is known and the changes of the situation after the intervention can be related to the concrete factors. This track is followed by a project group developing public access ICT in the public libraries of Lithuania. The relations established between the two groups should enable to re-use the data of the longitudinal monitoring of the situation (including before the establishment of the points and several years after in different libraries).

One of the most important directions in investigating the effect of the ICT is the perceived impact on the individual and social (community) life. This track is not covered by any previous research in Lithuania and is especially important for further development of the public access ICT. It may be one of the most productive ways to find out the reasons of non-use and/or drop out of the users. It may also uncover what conditions and measure will be most effective for increasing the use and impact of public access ICT. The economic impact can also be investigated through perceived usefulness by the users and measured in terms of saved time and/or gained economic/competitive advantage.

The longitudinal study of the social and economic impact of public access ICT should not only reveal the past and present impact in several countries, but also should examine the experience of the public access ICT venues in the countries with high penetration of internet into households but retaining strong

influence and role of the public access ICT in the communities. Comparison of their practice and experience with the ones from Lithuanian cases may provide further stimulation for this type of service.

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ANNEX 1: INSTRUMENTS FOR THE EXPLORATORY RESEARCH

Interview guidelines with the representatives of the establishers of the public access venues (representatives of municipalities, owners, staff, etc.)

The main aim is to disclose what kind of impact on the community level was expected before the establishment of the public access ICT venue and whether the expectations have been met. The decision making process.

Main Questions:

What was your role and contribution to the establishment of the public access ICT venue?

Who did take part in the establishment (persons, organisations) and what was their role?

Who did decide to establish the public access venue? Whose initiative?

What were the objectives of the public access establishment? How the place was selected? What

changes were expected? What were the expectations with regard to users and uses?

What was the process of establishment? Objectives, sequence?

> Examples:
>
> - equipment,
> - technologies,
> - connection conditions,
> - access (time, duration);
> - training of the staff,
> - training of users,
> - security,
> - limits of access (decisions making);
> - recourses for establishment and maintenance (sources)

Has everything gone according to initial plan? Any unexpected obstacles, problems? If any, please indicate? How were they overcome?

How much are you satisfied with the present organisation of public access venue operation? Any difficulties, problems?

What should be developed or changed? Are there any plans how to solve these or any other problems?

How the operation of public access venue is assessed / evaluated? If any, who and how makes it? What assessment tools are applied? Are the results available? Any statistics collected?

Could you please mention several matters, how the public access venue has changed the life of community (people)? Has it contributed to any change?

What changes would you foresee any in future?

Do you intend (have any plans) development of the public access ICT venue for community members? How, in what directions?

Interview Guidelines with Users of Public Access Venues

How often do you come to this venue?

How much time usually you spent in venue?

What do you do? What are your activities? For what purposes do you use the computers?

- Email
- Chat
- Games
- Internet browsing
- Word processing, spreadsheets and PowerPoint
- Voice over IP
- Webcam
- Movies
- Other

Do you use the following? How often, for what purposes?

- Blogs
- Social networking sites
- E-government services
- Education
- Specialized databases
- Remittances and banking

- Other

What information do you look for?

Why do you come to the venue?

Where else do they access computers? For what purposes, how often, how long?

Do you use computers at different places at the same purposes as at the venue?

Do you need any help at the computers? Do you ask the staff for the help? In what cases, how often it happens?

How do you learned to use computer? When, where?

How would you evaluate your ICT skills? What skills you would like to improve?

Do you come to meet anybody at the venue? Do you have any common activities?

What do you like best about the venue?

What do you like least?

Guidelines for Group Discussions

Objective:

To collect qualitative data that would illustrate communication and information networks of a community living in a certain geographical space. On the basis of a kind of „photography", a role of public access venue could be disclosed.

Selection of participants:

- 8-10 participants, invited by several representatives at local sites;

- Group composition – heterogeneous: different age groups, gender, occupation; those who use computer at their work, and those who do not use computer at their work; users of the public access venues and non-users.

- Duration: 90 – 120 min.

Resources needed:

- Flipchart

- Colour markers;

- Small presents for participants, coffee, tea, water.

CONTENT/DETAILS	COMMENTS
INTRODUCTION	**~10 min**
- Introduction, explanation of the aim of meeting. - Main rules: talking one by one; no fault answers; importance of opinion. - Participants presentation: name, age, occupation, interests	
INFORMATION SOURCES, PRACTICES OF USAGE	**~40 min**
I would like to discuss the following topics [number of topics selected in a group Discussion, depending on participants, time consumption, etc.]: 1. Health 2. Education 3. Financial operations 4. Employment, search for jobs Each discussed one after another, not more than 3 in a group. The sequence of topics is changed in each group. I. Health - Going back to the last year, could you please tell who has brought you information on health? (Think of people with similar problems, any trusted experts, doctors, nurses, remedies, drugs, any alternatives, rehabilitation, etc.) Think about where and through what information sources and media you acquired that information. - Who did you contact first as you (your family member) got sick last time? What was the purpose of contact? II. Finances, taxes, declarations - Going back to the last year, could you please tell who has brought you information on tax payments (housing, fees, fines, declarations (income, property, land)? (Think of people with similar problems, family members, friends, any trusted experts, officers of public institutions, banks, etc. Think about where and through what information sources and media you acquired that information. - Who did you contact first as you (your family member) had to deal with any of these problems? What was the purpose of contact? III. Education / Employment - Going back to the last year, could you please tell who has brought you information on education / employment (job search) (selection of a school or any other educational establishment, qualification services, LLL, entering high school, etc.; job search, career issues, qualification, personal development) (Think of people with similar problems, family members, any trusted experts,	

officers of public institutions, NGOs, colleagues at work or studies); Think about where and through what information sources and media you acquired that information. • Who did you contact first as you (your family member) had to deal with any of these problems (further studies, individual learning)? What was the purpose of contact? What are the situations you need information on the abovementioned topics? What sources of information could you identify? Which sources would you use, trust? Which source do you usually use? What are the alternatives? What are the places? *All the answers are put on the flipchart by the facilitator and discussed.* *If not mentioned during the discussion, several questions on ICTs, such as: Would you use internet? In what situations, under what circumstances? Why? Where would you use it? Why is it relevant/irrelevant?* In which situations / with regard to what topics has the sources of information changed most significantly during the last 12-24 months?	
SOURCES OF INFORMATION—how the electronic materials used	**~10-15 min**
Usage of information sources and their alternatives Do you do the following things : • Reading books (how many per year/month) – electronic ones? • Magazines (what, how often) - electronic? • Press (how often, what) - electronic? • TV (time per day/week) – on the internet? What channels? • Radio (time per day/week, places, stations) – on the internet? Channels? • Do you listen to music? What technical equipment do you use? Where are the records from? Do you download? • Do you watch movies, video records? Where? Where are the records from? Do you download? • For what services do you use your mobile phone?	
USER'S/NON-USER'S PROFILE	**~ 20 min**
How often do you come to this venue? Why yes and no? How much time usually you spent in venue? What do you do? What are your activities? For what purposes do you use the	

computers?	

Email
      Chat
      Games
      Internet browsing
      Word processing, spreadsheets, PowerPoint
      Voice over IP
      Webcam
      Movies
      Other
 	
Do you use the following? How often, for what purposes?
      Blogs
      Social networking sites
      E-government services
      Education
      Specialized databases
      Remittances, banking
      Other
 	
What information do you look for?
Why do you come to the venue?
Where else do they access computers? For what purposes, how often, how long?
Do you use computers at different places at the same purposes as at the venue?
Do you need any help at the computers? Do you ask the staff for the help? In what cases, how often it happens?
How do you learned to use computer? When, where?
How would you evaluate your ICT skills? What skills you would like to improve?
Do you come to meet anybody at the venue? Do you have any common activities?
What do you like best about the venue?
What do you like least?	

THANKS, THE END	