Estonia's Digital Divide and Ways of Bridging It

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AS Emor and the PRAXIS Center for Policy Studies have recently carried out a thorough analysis of people in Estonia who use the Internet seldom or not at all. Recommendations were developed on the basis of the study, which was initiated, financed and carried out in partnership with the Open Estonia Foundation, the State Chancellery and the Look@World Foundation. Some financing came from the IBRD infoDev Program. The study [1] is available at www.oef.org.ee in Estonian, English and Russian.

THE BACKGROUND OF THE STUDY

The term "digital divide" refers to the gap between individuals, households, businesses and geographic areas at different socioeconomic levels with respect to their opportunities to access information and communications technologies, as well as with regard to their use of the Internet [3]. These are important issues when we think about the developmental trends of the Information Society in developed and developing countries. Social and economic changes which are based on information technologies are widespread today, and efforts to reduce the number of people who adjust to technological changes more slowly and who have problems in overcoming the digital divide have social and economic implications. If we ignore the issues which this group of people faces, we distance one part of our population from active economic and social participation.

The development of the Information Society in Estonia is generally described in glowing terms, but recent indicators do show a decrease in the growth rate when it comes to various benchmark indicators in the Information Society (Figure 1).

In the autumn of 2001, in response to these concerns, the Open Estonia Foundation, the State Chancellery and the Look@World Foundation announced a public competition to find institutions that could run a study on the subject "The social aspects of information and communications technologies in Estonia". The competition was won by AS Emor and the PRAXIS Center for Policy Studies, and the resulting research focused on people who use computers and the Internet less frequently than once a week, as well as on those who do not use computers or the Internet at all.

The main objective of the study was to determine the population groups in which computer and Internet use is significantly lower than in other groups, as well as to identify the needs, attitudes, prejudices and expectations of light users and non-users of these technologies when it comes to the new information and communications technologies and services that are available.

METHODOLOGY

The study was conducted from January until July 2002. Emor conducted a so-called E-Track survey within the framework of a broader survey which looks at computer and Internet use among Estonian residents who are aged 15 to 74. This was used to determine those groups in which Internet use had to be studied more closely, also taking a look at the developmental dynamics of these groups over the last several years.

The defined segments were then studied in a qualitative way, using focus group interviews to gain a thorough overview of the attitudes and beliefs of respondents when it comes to the use of information

technologies and the Internet.

Next, a value beliefs survey was prepared on the basis of the focus group interviews and of the RISC survey, which Emor has run since 1992 to measure the value beliefs of Estonian residents. The survey on which this report is based was carried out in February 2002.

PRAXIS, for its part, conducted expert interviews. On the basis of materials from Emor, experts were asked to provide a general evaluation of IT developments in Estonia so far – the relevance of the digital divide, the underlying reasons for the divide, potential solutions in terms of encouraging risk groups to use the new means of communications that are available, and specific recommendations on ways in which the national IT action plan can be used to reduce the digital divide in the next several years.

An expert forum was organized on July 15, 2002, to bring together specialists in information technologies, economics and the social sciences.

CONCLUSIONS FROM THE SURVEY

1. "Blue collar workers" and "passive people" are defined as non-users of the Internet

Emor's value beliefs survey [2] found that 58% of the Estonian population aged 51 to 74, or 607,000 people, were non-users of the Internet in February 2002. One-half of these non-users acknowledged one or more benefits from using computers or the Internet, while the other half did not. When speaking about personal Internet use, 65% of non-users could not identify any areas that would be of personal use to them.

The authors of the study concluded that one-third of non-users of the Internet are motivated to use the Internet and could access it through projects that are already underway. These are people who have a more open attitude toward the acquisition of new skills, as well as an ability to overcome any obstacles to Internet use that might arise (Figure 2).

New projects for non-users, thus, must devote special attention to the two-thirds of non-users (393,000 people) who do not associate Internet use with their personal lives. There are two population groups which are distinct in this cohort – retired persons and workers who are labeled as "passive people" and "blue collar workers". Both labels are conditional and general terms which are defined on the basis of the value beliefs study, looking at the mentality and socio-demographic background of the people who are part of these groups [2].

Among "passive people", or 28% of non-users of the Internet, approximately 60% are older than 50. "Passive people" have relatively little interest in matters which are not part of their daily lives, they make weak associations with Internet and computer use, they see no benefits from the Internet and see no need to use it. These are people who prefer the traditional media, even if the Internet is cheaper and more convenient. Problems include a lack of interest, a language barrier, an inability to handle the user interfaces of computers, etc. These people are relatively less able to learn and memorize new things, and they are not willing to change their habits.

"Blue collar workers" make up 27% of the non-users of the Internet. These are mainly unskilled or skilled workers who do not use computers in their work. Approximately one-half of the people in this group see no benefits from the Internet, which means that the Internet is not attractive to them, and they do not look for opportunities to use it. There are social and psychological barriers here – the fear of new technologies, no perception of the need for lifelong learning, a fear of demonstrating one's lack of skills to others, etc. There are also skill barriers such as a lack of computer and foreign language skills, as well as economic barriers, mostly in terms of relatively low per capita incomes.

There are some 176,000 retired people in Estonia who are "passive people". Blue collar workers include 151,000 unskilled or skilled workers, as well as 42,000 medium-level specialists and client service personnel.

Other groups among Internet non-users are defined as "experimenters" (these are people who usually want to try everything that is new [2]) and as "other non-user groups" (a more heterogeneous group in regard to the mentality of its members – that's why the label does not refer to any particular way of thinking [2]). These people are more active, flexible and adaptive than "passive people" and "blue collar workers", and they have a basic motivation for using the Internet – they see personal benefits that can be associated with Internet use.

The authors of the study are fairly certain that the socio-demographic characteristics of the population groups in which information technologies are not used are similar to the characteristics of such groups in other countries, too.

2. Motivation barriers

The major barrier against Internet use in Estonia is the fact that the possibilities which the Internet offers are not associated with personal needs – people think that "computers are not for me". One reason for this may be the Internet access structure which is common in Estonia. The standard of living of the Estonian people is relatively low, and comparatively few households have computers. Schoolchildren, for their part, are above-average Internet users because of the well known Tiger Leap Program. Various companies and institutions began to use computers some time ago, when they started to adapt Western working standards. These trends have encouraged the view in Estonia that computers are something that is used by children for school assignments and by adults at work.

Another barrier is the fact that although the Internet can satisfy all of the basic needs that are associated with it – communications, information search and management of one's affairs, there are many people

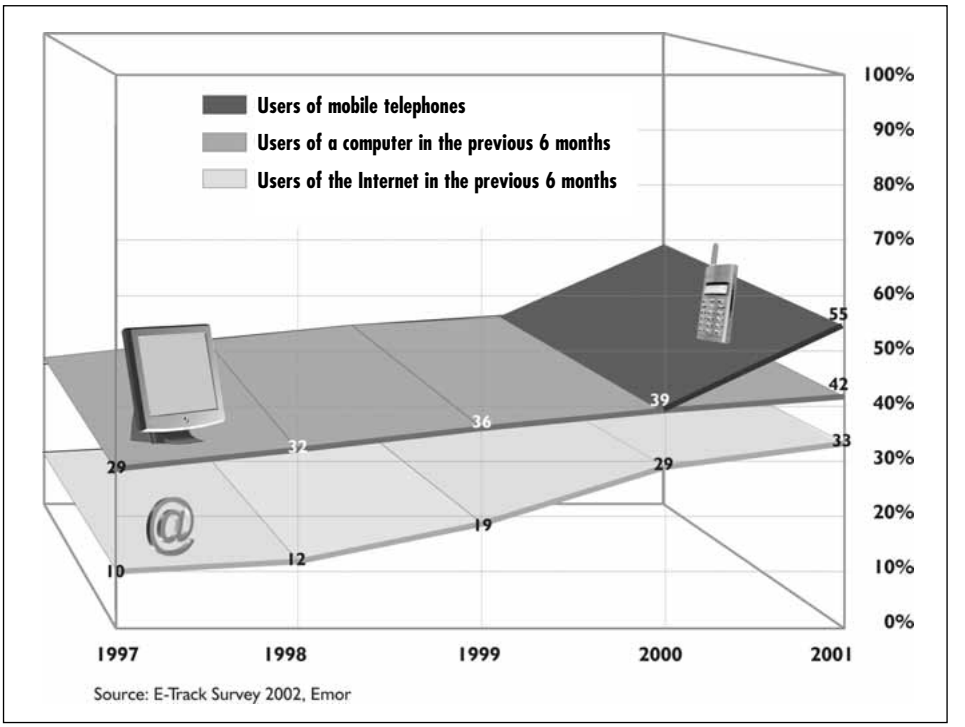

Figure 1. The usage rate of computers, the Internet and mobile telephones (% of the population aged 15–74)

who prefer other existing means and do not find the content and services of the Internet to be sufficiently attractive or of personal benefit.

A barrier that is specific to Estonia is the small number of Russian language Web sites and Internet services that relate to the Estonian society. Among Internet non-users in Estonia, there are some 247,000 Russian speaking residents who are aged 15 to 74.

3. Skill barriers

Among all non-users of the Internet, 26% mentioned poor skills or the complicated nature of Internet use as the reason why they do not use the Net. We must remember that it is easier to say that the Internet is unnecessary or inaccessible than it is to admit to one's own lack of skills (lack of access was the most frequently mentioned issue, followed by the lack of any need to use the Internet, and then by a lack of skills). The fact that few respondents spoke of a lack of skills may indicate the thinking of Estonians when it comes to the Internet – they first expect to have access to a computer and an Internet connection, then to have a need to use the Internet, and only then to develop a willingness to learn.

Internet use is complicated for non-users and light users because the relevant technologies and services can be complicated. People have language problems, they have to memorize various aspects of computer and Internet use, and they have few opportunities to practice. People worry about damaging expensive machinery and about causing harm to themselves (transferring money to a wrong account, for instance).

Both "blue collar workers" and "passive people" have strong social fears about learning in a group and about using the Internet in public places. They fear falling behind, and they are unwilling to display their lack of skills - appearing stupid or hindering the work of the group because of poor performance.

When it comes to skill barriers and psychological barriers, there are also attitudes and value beliefs which are less supportive of the acquisition of Internet skills. People don't approve of the principle of lifelong learning, they have a view of life which focuses on existing barriers, they have a stronger than average need for structure and order, and they have a lower than average level of initiative and creativity. When encountering an obstacle, these are people who are prepared to give up instead of seeking out new opportunities and trying again.

4. Access barriers

The main places for Internet use in Estonia are the workplace (53% of users aged 15-74), home (40%), school (29%), the workplace or home of an acquaintance (23%), and public Internet access points (15%) [4].

Non-users of the Internet say that they would like to use it at home. A majority of non-users will probably not encounter any need to use the Internet at work – retired people no longer work, and the work of blue collar workers does not involve computer skills. Most non-users are unwilling or unable to use a public Internet access point (PIAP) because of inconvenient working hours, the need to reserve a computer in advance, etc. All of these circumstances mean that economic barriers are the greatest obstacle to access – the simple fact is that many people cannot afford to buy a home computer.

Economic problems will not be resolved in the next few years, so other solutions have to be sought out in terms of increasing the number of Internet users. It is important to think about the barriers which exist in the use of PIAPs. Two major barriers include the idea among non-users that the PIAPs are meant only for younger or more highly skilled people and the fact that going to a PIAP involves a substantial effort.

The most important, albeit hidden reason, however, is an unwillingness to change daily routines. "blue collar workers" have a daily trajectory that can be described as home-work-shop-home, while "passive people" have one that can be called home-post office-shop-home.

POLICY RECOMMENDATIONS

On the basis of the aforementioned barriers, PRAXIS has come up with recommendations concern-

ing a strategy for popularizing information and communications technologies, the aim being to increase computer and Internet use among the Estonian population. The "passive people" and the "blue collar workers" are target groups here. Those who are "experimenters" or belong to "other groups of non-users" will probably find their way through existing projects. The catalyst will be an increase in the scope of existing activities, especially when it comes to the breaking down of motivational barriers. Members of these groups include potential PIAP users. The most important short-term requirements are skills training through various courses, as well as more efficient information about existing services.

"Blue collar workers"

The study showed that it is reasonable in terms of effectiveness and of the guarantee of broader economic development to focus on the blue collar group of people – individuals for whom motivation is the main problem at this time ("computers are not for me", "computers are needed by children and by those who require it at work").

The most important step here is to introduce more people to the possibilities of Internet use, stressing the direct benefits for the target group. It is important to add value to E-services – time saving and lower service fees would not be a sufficient argument, but the availability of specific information would be. Considering the proportion of this group that is made up of people who don't speak Estonian, public and private sector information and services should also be translated into Russian. This would be highly effective if accompanied by a relevant advertising campaign.

Overcoming the skills barrier is also of great importance in the case of "blue collar workers", because even if they have a computer at home, it may be that only the kids in the family are using it. The workplace is the best place for training, and as the unemployed are one of the groups of non-users, direct pressure by the state to involve these people in training (e.g., more extensive training with respect to the Internet during conversion training) would be effective.

PIAPs in their present form do not satisfy "blue collar workers", and an effective solution would be to create special facilities that are easily accessible to them and that would allow each "blue collar worker" to be in an environment where others are similar to him. Public Internet facilities and training at workplaces could be an effective solution. An appropriate information campaign (also covering existing PIAPs) would help to involve the Russian speaking population.

Internet use among "blue collar workers" would also be improved by a campaign which involves motivation enhancement and a price mechanism which increases the number of home computers and home-based Internet connections.

"Passive people"

If "passive people" are to be brought closer to the Internet, a broader understanding of the concept that "the Internet is for everyone" must be propagated. The belief that "computers are not for me" is the main barrier for "passive people".

Along with an appropriate publicity campaign, special PIAPs need to be created for this group at the places where they gather (social organizations, for instance). If possible, PIAPs should also be set up at post offices. This could be very effective if postal workers were to introduce special services and provide hands-on training.

Only after the broader motivational barrier is overcome will more specific services such as a special information portal about health care services become more attractive for the "passive people" who are currently non-users of the Internet. ❑

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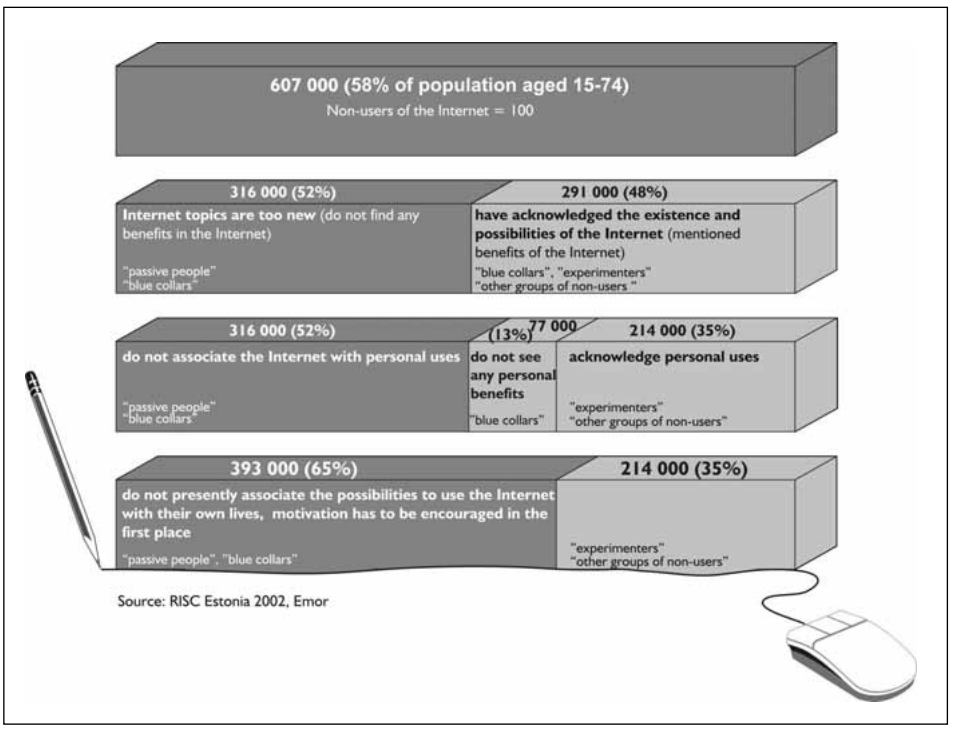

Figure 2. Lack of motivation is a key factor in 2/3 of non-users of the Internet