Digital Divide in Debrecen and Perspectives

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Abstract

The term digital divide refers to the gap between people with effective access to digital and information technology and those with very limited or no access at all. There many imbalances in many sociological variables between these two groups, the most important dimensions are the income, profession, education, gender and age. The biggest gap in the Internet access are the age and to belonging to a different generation. According to [3] it is very hard to bridge this gap, the pensioners have the lowest Internet access, young people use Internet ten times likely than a oldest ones. One third of the 25 years or younger use the Internet, while only 3 percent of 65 years old or older. Of course we can assume, that the differences according to the age became smaller, because the Internet generation get pensioner in the future, too.

At the spring of 2009 we made a survey in senior citizen clubs of Debrecen, Hungary. We inquired that that they know about Internet and do they use Internet, or they would learn that if they would have free opportunity. Moreover we asked them about their credit and debit card usage habits, too. In this article we present the results of the survey and try to find the reasons of protest of pensioners.

Keywords: digital divide, senior

MSC: 97U50

1. Introduction

Nowadays modern technologies of information and communication (ICT) have gained considerable importance. Recently we can find computers everywhere – in the workplaces, in our homes, at the doctor's office, even in our pockets and in our cars.

The offers of the information and communication have focused on the Internet, which can save time and have great economic benefits. However, this trend is

accompanied by risks, including the losing of the traditional channels, which would make certain information and services easily accessible to people do not use the Internet. But as soon as computers, the Internet began to appear in the workplaces and homes, the researchers expressed concerns about the *digital divide* – the line between those with computer skills and access, and those without.

The digital divide refers to the gap between people with effective access to digital and information technology and those with very limited or no access at all. There are several digital dividing lines: gender, race, special needs, etc., as well as the socioeconomic digital dividing line. But there is one dividing line, not so difficult to overcome, it is the digital dividing line between generations. There is a gap between the technologically literate younger generations and the technologically challenged senior population. By Norris, in USA it is very hard to bridge this gap, the pensioners have the lowest Internet access, young people use Internet ten times likely than a oldest ones. Of course we can assume, that the differences according to the age became smaller, because the Internet generation get pensioner in the future, too [3].

For using the Internet you need to operate a PC, and this is simply too complicated for most elderly people; or at least they think it is. Most of them are not willing to jump over the threshold to learn basic PC skills necessary for accessing the world of Internet applications. According to Seniorwatch, a European Union programme for monitoring the needs and markets for older citizens, 48% of the European citizens older than 50 years agree or strongly agree with the statement *I am too old to familiarize myself with computers*. The number increases to 62% amongst the non-PC-users [5].

The e-Inclusion – annual report prepared by Inforum and the University of Technology, Budapest – shows that the integration to the information society is critical for older generation in Hungary. The study shows that there are now nearly 4 million people aged over fifty years in Hungary, but only 16% of them use the Internet. For the retired population the using of world wide web is even less common, only 4% (about 75.000 people) is considered regular user. According to the international trends this number is extremely low. The rate of persons excluded from info-society decrease only 4% per year.

2. The survey

In March 2009 I asked 106 seniors – above sixty – about their computer usage habits. The first question was: *Do you use computer, or not?* The result is in the Figure 1. These numbers are very close to other statistics about Hungarian seniors' computer usage [1].

Next we asked the senior computer users *What are your favorite subjects?* Their answer were: Internet and game. This means that the seniors and juniors are not differs from each other.

Based on statistics we had hypothesis that only the small percent of the seniors use computer. We interested what is the reason of this small rate? We asked the
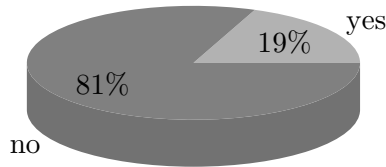
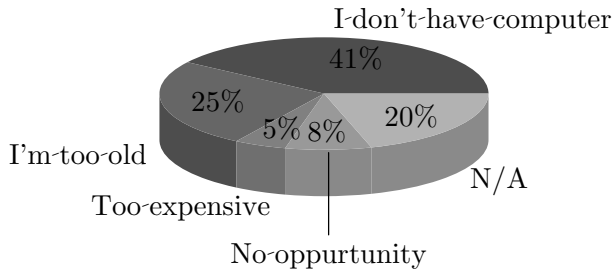Figure 1: Do you use the computer?

Figure 2: Why do you not use the computer?

seniors *Why do you not use computer?* You can find the answers in the Figure 2. If you know the amount of pensions in Eastern Europe, you may think that the high price of the equipment and the subscription fee is the reason. It is surprising, that only 13% of the answers contained this.

You know that there are cost effective solutions, for example if you would like to read a book, you do not need to buy it, you can borrow from a library. There are many project to make available the internet for everybody for free or for a low price: telehouses (www.telehaz.hu) and e-Hungary (www.emagyarorszag.hu).
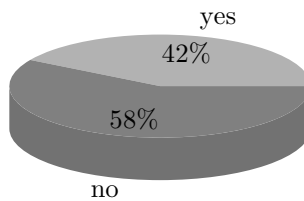

Figure 3: Would you learn it gratis?

We wanted to know it is reasonable to organize educations for seniors or not. We asked them: *If you have the opportunity to learn the usage of PC and Internet for nothing – for example in this senior club – would you participate?* The answer for this question in the Figure 3 validates the previous answer. About forty percent of them are interested in learning it. This means if we wish a higher Internet

penetration, we need to arouse the seniors' interest. Hard to change the customs: *I lived well without computer in my whole life. Why I learn it now for few years?* Hopefully at Hungary there are promising initiatives:

- the Inforum (www.inforum.org.hu) produced 30 short films to show the computer usage, Internet and on-line services for seniors in an amusing style.

- in the series Grandchild–Grandma contests, the grandparents can learn use the Internet while they have to solve problems together.

- portals for seniors to bridge the digital gap (50plusz.net)

The seniors can get informations about the capabilities of the computers from many sources, hence we asked *What good a computer for?* From the answer on Figure 4 we can conclude what kind of stereotypes are common. From the evening news or journals they could know that there are news on the Internet, it is possible to send messages, pedophiles have many pictures on their machines, and ones can stole the data of bank accounts and money, as well. Less person know that we can buy with the Internet, video-phone over the Internet, booking to the doctor or the mayor offices, can see TV and listen radio. We note that the most popular radio station at Hungary remark after each program that we can listen it again on the Internet.
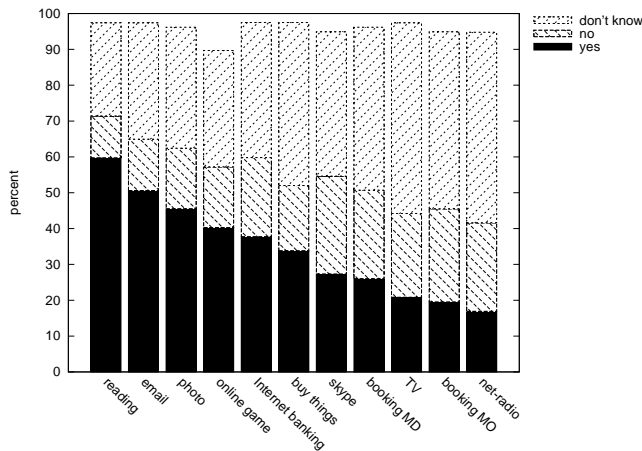

Figure 4: What good a computer for?

In the second part of the questionnaire we asked them about their debit/credit card and mobile phone usage habits. The results in the Figure 5 show that the admission of these new technology is not general at seniors. I think you have at least 2 or 3 different bank card. If you travel a lot, maybe more. Less than the half of the seniors has bank card at Hungary, although many of them needed one to get

the salary before he/she retired. One interesting thing: only sixty percent of the owners use the card for buying things, the others only take out their pension from the bank.
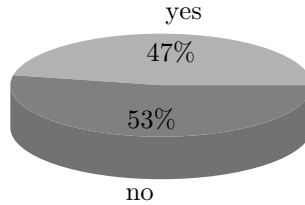
yes
47%

53%
no

Figure 5: Do you have a debit/credit card?

The only exception where the seniors apply the most modern tools is the phones, see Figure 6. I think everybody had seen very old ladys using phones on streets. Although the designers does not make easy the seniors' mobile phone usage: small screens, small letters, complicated menu structure and nowadays the touch-screens are not for them, the needs to talk with relatives anytime and anywhere make a very narrow bride over the digital gap.
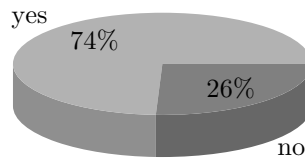
yes
74%

26%
no

Figure 6: I have mobile phone.

The seniors carrying the mobile phones with them everywhere, they do not use it, only for talking. The built-in cameras now are better than the first digital cameras, so they could make valuable photos. Moreover the short messages could use to save money, or oversee the bank accounts. Nevertheless most of the seniors do not use these capabilities as the Figure 7 shows. On the left the answers about making photos and on the right reading and writing short messages.
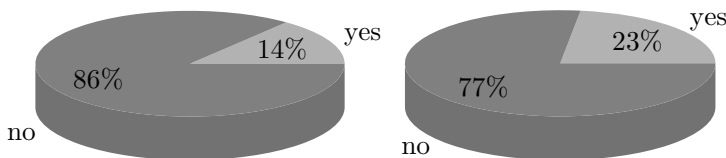
14% yes
86%
no

23% yes
77%
no

Figure 7: Photos and SMS.

3. Discussion

It is hard to imagine that it is technologically too difficult to develop a simple device for less than 200 euro, which has a button for connecting directly to a simple Internet search portal, a button for sending and reading e-mails in an uncomplicated way, a 9 inch screen as display, a mouse-like device for navigating, a keyboard for typing e-mail texts, and a failsafe function, which automatically returns it into a stable operation mode, should it crash. The simplicITy computer sell in United Kingdom are designed for seniors, but its price are above 500 £.

We listed before some initiatives, but they are not enough. We need some extra: a group of inquisitive seniors and a dynamic leader for them. It is well-know, if you a member of some community, you will behave as the members of the community. Most of the retired persons have a lot of spare time, and it is problem for him/her, how to spend it usefully. To join to a community and to try or learn something new is the best solution for them. And this useful for the everybody as follows immediately.

Two research studies have shown incredible benefits for older people who spend time online. [2] has shown that computer use decreases depression in seniors and older Baby Boomers by 20%. When seniors connect to others through social networks, they feel less lonely. Loneliness can cause or exaggerate many types of depression.

Small at al. has determined that older people, who go online, have increased activity in the areas of the brain that control language, memory, and visual ability. This helps parents or grandparents stay mentally fit [4].

4. Conclusion

We have made a survey among seniors in Debrecen, Hungary and asked them about relation of them to ITC. From the answer we get know, that the bigger part of them are not interested in computers. Medical researches had shown that the usage of computers has medical benefits for seniors, so our duty to find the way to get them to the computers.

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