

E-INCLUSION IN HUNGARY

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INFORUM

Forum of Hungarian IT Organizations for Information Society
Informatikai Érdekegyeztető Fórum

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I. Executive Summary

Is Hungary rich enough to write off the larger half of the population of active age and to preclude them from the information society? In the age of the internet does the society have the right to open "digital infinity" only for the children, the young people, people with high education, high income, and the inhabitants of cities, and to direct the elderly, the people living in remote villages, the poor, and the less educated to a modern "societal Taygetus"? In our age the basis of getting information is the electric media, and the terrain of societal communication is the internet; and the internet will be more and more the terrain of working and exercising the citizen rights as well. Therefore, can the country allow itself to erect prohibitive barriers for several million people with reasons like they are too old to learn; they live too far for accessing the internet; they are too stupid to learn the skills of the age? Thus, do we have the right to preclude the generation from which we could otherwise learn as well?

Approaching the end of the Year of e-Inclusion, we think we have the right to raise our word and say that modern outlawing cannot be forced upon 50 percent of the population of the country.

Inforum (the Forum of Hungarian IT Organisations for Information Society) published in year 2000 its call named Hungarian Charter of Information Technology prepared by the professional community, which declared among others that the chance of getting acquainted with the internet should be provided for people in disadvantageous situations and the elderly. Eight years have gone by, and the number of internet users above the age of 50, which was around ten thousand at that time, has increased to half a million by today, but still 5 million of our fellow-countrymen (above the age of 18) do not know how to use the internet. Although the ratio of internet avoiders decreased, but not at a significant rate: the ratio of people excluded from the information society is decreasing annually with only less than 4 percentage points. It is a very sad fact that close to 50 percent of the digitally illiterate are 60 years old or older, and 68 percent of them are inactive.

Present report deals primarily with the elder generation, since in Hungary - in addition to the very unfavourable employment and labour market indices - we have to face first of all the problem of the rapidly aging society. We will also present examples. However, since Europe

struggles with the very same problem, it would be worthwhile if the economic and governmental decision makers of Hungary would get acquainted with the best practices of the EU and at least with the political trends of the European Union.

At present there are close to 4 million inhabitants over the age of 50 living in Hungary, and from those who are of the age that is still employed (between the ages of 50-64) only each third is working. In Hungary the ratio of active workers hardly exceeds 60 percent of the adult age population, which is an unprecedentedly low ratio even among the EU member states. 62.1 percent of the people between the ages of 15-64 appear on the labour market and 57.3 percent of them are employed. According to the data that are published by Eurostat, while the rate of unemployment was 6.8 percent in the member states of the EU27 in August 2008, in Hungary it was 7.7 percent.

The digital literacy level of the employees is also very unfavourable. In 2006 while 51 percent of the employees of the Union used the internet, in Hungary only 29 percent. More than 40 percent of the domestic employees do not have any computer skills.

In Hungary the groups that are most in need of assistance from the aspect of e-Inclusion are those, who are older than 50 years, the pensioners, the unemployed people, people with low education and people living in smaller settlements, the poor. These groups can be considered to be fully excluded from the information society.

We may see that in the last couple of years openness towards the internet has increased not only in the Hungarian society as a whole, but it is true for the age groups above 50 as well. But even within this societal group there is a huge gap along the border of societal status, education level, income. People with high education, who met computers at their workplaces, the groups of higher income can be easier persuaded to use the internet. On the other side those members of these age groups, who are in more disadvantageous situation socially are in need of significant and real assistance, and serious programs.

Unfortunately already the side-wind of the credit and financial crisis was sufficient for Hungary to direct the "vehicle" of the country into the emergency lane. But it is possible to turn this into an advantage, if the country will accelerate - compared to everything else - the execution of the so far postponed societal modernisation programs, the transformation of the structure of the labour market, the development of the adult training system, the dynamic increasing of employment, and especially if -

meeting the requirements of our age - the country will make internet the joint basis of communication for everybody.

The first e-Inclusion Report outlined an overall status quo, and it formulated an action plan. The implementation of the action plan still requires time. Only one point was performed from it: the theory and concept of e-inclusion started on its way to conquer. In the report of this year we have defined the status quo in a more differentiated way, and we have reported those processes that have been started in Hungary. The second e-Inclusion report not only raises attention towards the gaps, but it already introduces the opportunities and the good practises as well. Between November 2007 and the end of 2008 the Hungarian civil organisations continued a heroic struggle to persuade the representatives of the decision makers, the governmental actors, the companies and the media about the importance of overcoming the digital divide through acts, and about the societal, economic, governmental, life quality and mental hygienic advantages that may be achieved by widely spreading the internet. This effort was initiated and it was also partially organised by Inforum. Inforum succeeded in persuading the representatives of the five Parliamentary parties to stand behind the issue, and concerning the need to bring Parliamentary Resolutions and to establish a Parliamentary Committee for solving this problem. Inforum succeeded in mobilising the civil organisations, which tried to exercise a stronger pressure in their own operation areas. It succeeded in persuading some high level governmental officers as regards the benefit that is offered by the increasing number of the users of online governmental services. The Hungarian Parliament, relatively late in time, on October 6, declared that 2008 is the year of e-Inclusion. However, such declarations were not made at all by other European Parliaments. The mandate and resoluteness of the established e-Inclusion Ad Hoc Parliamentary Committee is till May 2010. The news of the e-Inclusion event series reached the media only slowly. No success was achieved in mobilising the decisive majority of the Hungarian IT companies, in spite of the fact that in the economic sense the issue is exactly about the expansion of their markets. The enterprises that stood behind the issue were mostly the Hungarian representations of international companies.

Something has started in Hungary. If the enthusiasm of the civil organisations will not decline, if they will find supporters, if the Hungarian economy will not collapse, if a couple of such development programs will be started that will finance the internet training and attention raising of the people involved, then maybe the plan to connect one million new internet users to the information society in Hungary could be realised, and

the majority of them could be from the group of people of disadvantageous situations. It can be already seen that the one million users to be connected cannot be involved till the end of 2010, but maybe by the end of 2011 they can be. The European e-Inclusion policies contain several outbreaking points for Hungary. It is depending on the governmental actors and the enterprises whether they will live with the opportunities that are offered by the Union and the situation. The civil organisations performing beyond their strength and the Parliamentary politicians did their task and they will continue doing so.

In Hungary about 50 percent of the population of the age of 18 and above was digitally illiterate in 2008, that is, they were not using neither computers, nor the internet. This ratio decreased in the recent years, but not at a significant rate. The ratio of those excluded from the information society has been decreasing with only less than 4 percent points each year. It is an unfavourable fact that close to 50 percent of the digitally illiterate are 60 years old or older, and 68 percent of them are inactive¹.

Our annual report focuses primarily on the older generation, since Hungary has to fight in addition to its very unfavourable employment and labour market indices primarily with the problem of the rapidly aging society in the coming years.

At present there are close to 4 million older than 50 years inhabitants living in Hungary. 16 percent of this generation used internet, and among them the ratio of regular (with at least one week regularity) users is close to 60 percent. The profile of the typical older than 50 years world wide web citizen is similar to the typical (average) internet user's profile: he/she has higher education, he/she works, he/she is intellectually active, he/she lives in a multi-personal household, has a higher income, therefore old age internet usage is characteristically influenced by these factors in Hungary. The gender of the internet user is not a significant influencing factor of internet usage.

¹ ITHAKA-TÁRKI (2007): Preparing a foundation study for the Action Plan that will be prepared for spreading digital literacy

The information society of the elderly in Hungary in 2008:

		Internet user	Regular internet user
50+ inhabitants	%	16 %	13 %
	Their number	638,000 persons	560,000 persons
64+ inhabitants	%	4.8 %	3.7 %
	Their number	94,000 persons	72,000 persons

Source: World Internet Project, Hungary 2007)

The members of the 50+ age group got acquainted with the internet at the age of 53 on the average, but there are also people, who started to learn the basis at the age of 87. The elder age group mostly browses, reads email, reads news, and searches/checks things when using the internet.

In the case of the older people not using the internet the reasons of staying away is mostly cognitive type of reasons (not interested, do not need it), and not financial type of reasons.

Unfortunately from among the people 50-64 years old, only each third is working. If we examine the active people from the aspect of the labour market (both employees and entrepreneurs), then their computer and internet usage indices are close to the average of the population as a whole.

In Hungary the ratio of active workers hardly exceeds 60 percent of the adult age population, which is an unprecedentedly low value even among the EU member states. 62 percent of people 15-64 years old appeared on the labour market, and 57 percent of them were employed. According to the data published by Eurostat the unemployment rate was 6.8 % in the member states of the EU27 in August 2008, while in Hungary it was 7.7 percent.

Unfortunately the level of the digital literacy of employees is also very unfavourable. 51 percent of the employees of the Union used the internet in year 2006, while in Hungary only 29 percent of them.

1. The aging society is in the focus

The European e-Inclusion policy that has obtained a very definite form by our days draws the attention to the need of preventing the increase of the societal-economic differences that increased because of the usage of the means of the information and communication technology (ICT), and the possibility of independent life style has to be ensured for the elder generations exactly with the means of ICT. No matter how characteristic it is about the Hungarian society that a significant class of people believe that they do not need the internet, the spreading of the modern info-communication devices brings significant changes into their life. Hungary is facing a huge step that must be taken. The postponed economic structure transformation, the extension of employment, the naturalization of the new skills and competencies, the problems of the rapidly aging society, the sustainability of the social and welfare systems tower as a challenge in front of the society.

With the aid of the active means of the inclusive information society – e.g. wideband infrastructure, e-public services, obstacle free web hubs, digital literacy – it is possible to increase the integration power of the society, to improve equal opportunities, economic activities, the possibilities of employment, and thus the quality of life. Since the economic and societal problems – even if they are of different extents – are very similar in the individual countries, the program of e-inclusion became by today a Europe wide value.

In the present economic situation, at a time when the real value of incomes decreases, **the value of practicing e-Inclusion increases outstandingly as a very important means of preserving the quality of life.** The older generation is especially involved in this, since for them acquiring new skills and competencies, integration into the world wide web society may lead to increasing the chances of a better life quality.

Active participation in the information society, joining the information society cannot be done from one day to the other, since essential new behaviour and communication norms and skills have to be acquired in the complex information and societal network that is offered by the internet. In other words **the development of the information society depends on the socialisation processes.** In this context the significance of the **problem of the aging societies** is increasing.

In Hungary, at present, **there are close to 4 million people, who are older than 50 years. 84 percent** of this large group of people **does not use the internet at all**, and from among the 18-29 year old people twice as many new internet users appeared even in the last year than from among the people above 60. As a result of this **even the partial achievement of the targets that had been undertaken** in the Statement of Riga – to halve the existing digital divide in the case of some special target groups – represents a very big task for Hungary, which cannot be met with the means that have been used so far. In order halve the difference between the internet penetration rate of the older generation and the national average by 2010, from among the people older than 50 years **at least 720 thousand should become digitally literate**, more than the number of those within this class that are registered as internet users by the statistics at present. And then we still did not answer the question what will happen with the unemployed people, with people living in small settlements, people living with disadvantages, with the Roma people?

Who may be the main actors and means of this process? Our annual report provides a snapshot of this process at the end of year 2008, with a focus on the aging society.

2. The meaning of „e-inclusion“

As regards the issue of electronic societal inclusion the unified European policy was formulated by 2005. The Commission already suggested at that time that starting with 2008 the area of societal integration and equal opportunities should be in the focus, basing the building out of the completely inclusive information society on the widespread use of the information and communication technologies. The already mentioned Ministerial conference in Riga was the next step of the increasingly explicit e-Inclusion policy, where the European political leaders stood behind the necessity of reducing the digital divide. The Lisbon targets that are to be achieved by 2010 in the dimension of equal opportunities therefore were complemented with additional targets. According to the first and most important target the divide existing between the groups that are threatened with being excluded (elderly, unemployed people, people living with disadvantages) and the majority of the society has to be halved.

An important experience of the efforts made for eliminating the digital divide was that eliminating the digital divide will be a long process, which requires a complex societal political intervention series. Therefore it is essential that **the state (involving the civil organisations as partners)** should try to co-ordinate the developments that take place in this area **in a proactive manner, through continuous political interventions.**

Through the everyday, skill level ICT usage and practice of the web citizens we see what advantages this can mean in being employed, studying, spending the leisure time and in managing the everyday issues. Exactly for this reason – in a paradox manner – they are trying to reduce the developing and strengthening societal dividedness that is the result of the uneven spreading of the ICT tools with these very same means. In our days we already think that **the ICT means are suitable for improving the chances and the life quality of the dropping behind societal classes, groups.** The concept of e-Inclusion expressing this approach is already not focusing primarily on the presentation of the new type of inequalities, but it rather sets the target of **developing "win-win" ("interest conciliating") solutions that facilitate the exploring of the reasons and the bridging of the dividedness.** As a consequence of this quality change the descriptive, static concept of "digital dividedness" has been replaced with the expression of the normative type of "inclusive information society", which does not focus on the "divide",

but which emphasises the active means, opportunities and efforts that are able to bridge the gap. Therefore the concept that is behind the expression *e-Inclusion* already does not focus on presenting the new type of inequalities (the divide), but much more on the exploration of the reasons and the establishment of solutions (bridges) that facilitate the termination or at least the reduction of the dividedness.

Naturally we cannot expect that the means of ICT will solve the problems of poverty and discrimination, and they will terminate the inequalities that originate from the societal structures in a single step. So the essence of this is the following. Having access to the means of ICT, and their actual use and the use of online content and other services (e.g. public administration) may reduce societal exclusion, and it may establish equal opportunities as regards participation in the information society. According to the societal researchers the less fragmented, solidaric, higher "trust capital" possessing communities are able to adjust themselves far more successfully to the changing economic-societal circumstances, to the new challenges.

Therefore the European Union program of „e-Inclusion“ is established as the political projection of the matrix that unites the social targets of societal inclusion and integration, the cultural dimension of increasing education and the spreading of skills, the impact the economy strengthening potential of IT exerts on the labour market, and primarily the technologies that realise the preservation of life quality at a high level.

3. The political results of e-Inclusion in Hungary in 2008

The Parliament lined up behind e-Inclusion

The Informatics Subcommittee of the Economic and Informatics Committee of the Hungarian Parliament at its meeting held on November 28 heard the report of the Inforum (Forum of Hungarian IT Organisations for Information Society) on the situation of Hungarian digital inequality and the directives that had been recommended by the European Union. Inforum has drawn the attention to the opportunities that are offered in respect of the development of the country by integrating the classes living in disadvantageous situations into the information society in the area of using the digital means, and it has also pointed out that the ministries are not doing everything that may be expected from them for establishing digital equal opportunities, for reducing the digital divide. Inforum announced at this meeting the starting of the e-Inclusion 2008 Hungary movement, with asking the representatives and the political parties as well to provide assistance for those, who have been excluded from the information society.

The socialist president of the subcommittee, Mr. Péter Márfa through a letter turned to each Parliamentary party in order to establish such a five party conciliation the purpose of which is to assist e-Inclusion, to reduce the digital divide. During December the Hungarian Democratic Forum (MDF) and the Fidesz – Hungarian Civic Union (Fidesz) also published their commitment as regards the issue of e-Inclusion. MDF turned with a public letter to the Hungarian Ministry of Economy and Transport, and Fidesz communicated through a statement that "it considers the problem raised by the experts important, and it supports all such initiatives the target of which is to assist the citizens in disadvantageous situations, people living with disabilities, the elderly, and to improve their quality of life. For this reason it asked the specialised politicians of the Parliamentary parties to conciliate with each other within the shortest time possible." The Christian Democratic People's Party (KDNP) and the Alliance of Free Democrats (SZDSZ) also joined the initiative.

The representatives of the Parliamentary parties and Inforum met on January 8, 2008 and they reached a joint agreement as regards the following

- Realising e-Inclusion and with the aid of this improving the life quality of the society is a joint strategic task.
- Halving the digital divide by 2010 is not only a Union undertaking, but it is also a domestic target, since in Hungary the digital divide exceeds the Union average. Remedying this is a public interest and a public task.
- They consider the initiative of the societal self-organisations important and they support the movement of Inforum and other civil organisations, enterprises the target of which is e-inclusion. They will assist in making the activity of the civil organisations, enterprises and of public administration free of tensions as far as possible.
- They agree and support the initiative of Inforum the purpose of which is to establish a civil-public administration-entrepreneur-political forum. The civil organisations, enterprises and the actors of public administration and politics will establish this organisation for allowing the implementation of the actions of the information society and e-Inclusion to take place in a harmonised manner, under direct societal control as far as possible.
- They consider it necessary to examine which are those tasks that may be solved with the means system of the state administration, and which are those that may be done more efficiently by the civil organisations and the enterprises in the interest of solving the problem, and what state support can be ensured for them in order to widen this initiative.
- They reached a joint agreement concerning the fact that most of the means and possibilities are standing at the disposal of the government, and they wish to review in what form the issue of e-Inclusion and digital equal opportunities appears in the activity of the different ministries and governmental offices, and what they did in the interest of this during the past period, and what plans they have, with special regard to the Ministry of Economy and Transport, the Ministry of Social Affairs and Labour, the Ministry of Education and Culture, the Ministry of Agriculture and Rural Development, the Ministry of Local Governments and Regional Development, the Ministry of Health, and the Electronic Government Centre.
- They wish to also review the e-Inclusion related activities of the civil organisations and enterprises.

- They wish to examine in a complex manner what opportunities there are in the New Hungary Development Plan for including e-Inclusion into the development program in an emphasised and harmonised manner.
- They think it is necessary to set up an ad hoc Parliamentary committee for supporting, controlling, organising the movement and activities of e-Inclusion and for co-ordinating the tasks that are given by the EU directives the deadline of which is 2010.
- They initiate that similarly to the European Union, 2008 should be the Year of e-Inclusion in Hungary as well.
- They initiate that on the basis of the above points a Parliament Resolution should be made.

The representatives of the five Parliamentary parties on January 8, 2008 declared that – in co-operation with the Inforum (Forum of Hungarian IT Organisations for Information Society) and other civil organisations – they wish to do everything in the interest of improving the life quality of the citizens of Hungary, with the aid of the means system of the digital culture and the information society, and in order to achieve that the (information) societal and economic development of Hungary should be significant and measurable in line with the i2010 directives of the European Union.

On October 6, 2008 at 17:25 hours the Hungarian Parliament voted with 366 yes votes without any abstaining and opposing votes, and passed two Parliamentary Resolutions (OHs), on the issue of e-Inclusion. One of the resolutions established the 8 member committee of "e-Inclusion ad hoc committee for reducing the Hungarian digital divide" till May 2010, the members of which are Mr. Etele Baráth (MSZP), Mr. István Józsa (MSZP), Mr. László Koszorús (Fidesz), Mr. Kálmán Kovács (SZDSZ), Mr. Péter Márfa (MSZP) President, Mr. Béla Molnár (KDNP), Mr. Zsolt Nyitrai (Fidesz), and Mr. András Pettkó András (MDF). In an unusual manner within the Hungarian Parliament, the "Committee shall bring its resolutions with the agreeing votes of at least six members". According to the Parliamentary resolution it is the task of the Committee to continuously monitor the execution of the e-Inclusion program, and to prepare reports and standpoints.

The second Parliamentary Resolution declared the e-Inclusion related standpoint of the Parliament.

"The Parliament concluded that the Hungarian society is lagging strongly behind compared to the other European countries in respect of

acquiring informatics skills, and in accessing those values available through them, which are useful for the individuals as well, and in respect of exploiting the skills acquired. A digital divide evolved, which has already divided the society into two segments by today. On one side there are those, who use informatics with great skills, and on the other side there are those masses, who are incapable to interact through the world wide web due to some reason (the community spaces had been closed down, the high ratio of areas that are not reached by the service providers due to economic-technical reasons, other physical barriers, the occasional character and lack of content services useful for the individuals, the lack of knowledge-skills, the lack of recognising their self-interests, the feeling of indifference, the economic, social and cultural situation of the individual, the physical bondage of the individual, fetishism that intertwines everything today, which has surrounded informatics from the start and through this the feeling of complete uncertainty, alienation)."

The Parliament on the basis of the agreement that was signed on January 8, 2008 by the five Parliamentary parties brought the following decisions:

- 1. Year 2008 should be the Year of e-Inclusion in Hungary.*
- 2. In the interest of implementing e-Inclusion and with the aid of this in the interest of improving the life quality of the society – beyond the fact that the parties consider it to be their joint strategic task – the Parliament also wishes to undertake a responsible role. Hence halving the digital divide by 2010 is not only a Union undertaking, but a domestic target as well.*
- 3. The Parliament considers the setting up of an ad hoc Parliamentary committee necessary for supporting, controlling, organising the e-Inclusion movement and activities, and to co-ordinate the tasks that are given by the EU directives.*
- 4. Remedying the Union average exceeding digital divide is a public interest, a public task, a public target. Due to this the Parliament asks the Government to examine what type and what extent of state support and European Union sources can be allocated to e-Inclusion.*
The Government shall provide information on this for the Parliament till November 30, 2008 the latest.
- 5. The ad hoc committee to be set up will monitor the way the sources will be used.*

6. *The Parliament concluded that most of the means and opportunities are standing at the disposal of the Government. For this reason the Parliament asks the Government to examine - in addition to mapping the Hungarian and European Union sources - what opportunities exist within the New Hungarian Development Plan for including this issue in the development program in an emphasised and harmonised way. The Government will provide information on this for the Parliament till November 30 2008 the latest.*

7. *The Parliament asks the ministries and the governmental offices to examine in what form the issues of e-Inclusion and digital equal opportunities do appear in their activities. The Government will provide information on this for the Parliament till November 30 2008 the latest.*

8. *According to the Parliament it is essential to examine which are the tasks that may be solved with the means system of public administration, and which are those that may be executed more efficiently by the civil organisations and the enterprises. The Parliament awaits the proposals of the ad hoc Parliamentary committee in connection with this topic.*

9. *The Parliament considers the political-public administration-civil entrepreneur forum an important initiative, which was established from the actors of the political life, and the representatives of public administration, civil organisations and entrepreneur interest representations at the January 23, 2008 meeting of the Informatics Subcommittee. The main purpose of the forum is to allow the fully harmonised realisation of the actions that are started in the interest of the information society and e-Inclusion, and to achieve that the financial and intellectual resources should point to the same direction, for the benefit of e-Inclusion.*

10. *The Parliament considers those societal self-organisations to be important, which were established in the interest of reducing the digital divide. It supports all such civil initiatives that contribute to the success of e-Inclusion.*

The Parliamentary committee met for the first time on October 20, 2008. Mr. Ferenc Baja, who is the Political State Secretary of the Office of the Prime Minister and the Government Commissionaire responsible for the information society issues participated on the first meeting. He offered professional co-operation for solving the problems. He said the following: he thinks it is possible to orient the development processes in one direction, and professional type of joint thinking is very much in need in

this area. According to him it is important that in response to receiving professional questions the committee should be able to give professional answers, and he mentioned that this committee is not the optimal scene for political fights. He offered the political parties co-operation in professional areas in the name of the Electronic Government Centre.

At the end of the meeting Mr. Péter Márfaï emphasised that according to him it is important that the members of the Committee should contact the ministries involved and to "evangelize" or spread the theory of e-Inclusion among them as well.

The civil and the entrepreneur side may record other type of achievements. The visit of Steve Ballmer, the President of Microsoft speeded up the process through which the public administration and the state leadership should answer the workforce training and development demands of the informatics companies, which has been united by the Microsoft led TITAN program (see below). In the framework of this program several informatics companies and organisations developed a program that seems to be suitable for realising the training needs of the companies from state and European Union resources through being included in the New Hungary Development Plan. A part of this is a general training program, which offers a basic training opportunity for people, who have not met informatics yet. However, it can be also seen that TITÁN is not a social program, but it has to be defined in the first place as the answer to be given for the IT expert training demands of the enterprises. Steve Ballmer (and others) signed an agreement with Minister Gordon Bajnai, the minister supervising the developments, in the presence of the head of the government. However, the program has not been started yet. It is "in its programming phase".

It is a significant result that was achieved by the civil sphere in year 2008 that there are already fewer governmental actors isolating themselves from the messages that have been manifested in actions exposing this issue. However, no tenders had been announced in this area, and only the tenders of the previous years provided some resources for the local civil organisations for their educational information providing campaigns. The same can be said about the European Union as well, that is in the Year of e-Inclusion no such tenders were announced on EU level either (with the exception of the assistive technologies and the e-Inclusion Award), with the aid of which the proposal submitting companies could have mapped the e-Inclusion political directions to their everyday

activities. From this aspect it is questionable how serious Europe is about its own political theses?

4. Factors that represent obstacles in the way of the e-Inclusion efforts in Hungary

Low level of employment and low level of digital literacy

The issues of meeting the requirements of the new economic and employment structure, **and having a risk undertaking attitude are raised with a special emphasis in the case of the Hungarian population.** In respect of the employment level Hungary is significantly lagging behind from the (2005 and 2010) targets that are defined in the European employment strategy!

The employment rate of 55-64 year old people expressed in %:

	1995	2000	2001	2002	2003	2004	2005	2006
EU 27	:	36.9	37.7	38.5	40.0	40.7	42.4	43.5
Hungary	:	22.2	23.5	25.6	28.9	31.1	33.0	33.6
USA	55.1	57.8	58.6	59.5	59.9	59.9	60.8	61.8
Japan	63.7	62.8	62.0	61.6	62.1	63.0	63.9	64.7

(Source: Eurostat, 2008)

Unfortunately **the above tendencies manifest themselves even stronger in the case of Hungary:** while the employment index of the country is still bad, there are close to 4 million 50+ persons living in the country, and the number of inhabitants will drop to 9 million by 2030 according to certain estimates. The societal aging spiral is valid in the case of our country as well, and unfortunately it is also paired with an unfavourable labour market tendency: In our country one of the gravest problems is represented by the high ratio of employment age inactive people². Nearly half of the close to 4 million inactive persons is

² http://ec.europa.eu/employment_social/spsi/docs/social_inclusion/2006/nap/hungary_annex1_1_hu.pdf

represented by the early old-age and disability pensioners. Compared to the Union average the employment of older people and of men is especially low. In the case of Hungary from among the 55-64 year old people, that is from among the people, who are still not on pension, only each third citizen is working. Part time employment is practically completely missing – which could be an efficient means in the case of the older people. Only 4 % of domestic employees work in this form, while their ratio in the Union is 18 %. The ratio of those who participate in some kind of education, or training is not better either: In Hungary only 4 % of the 55-64 year old people participated in training in year 2007. In the Union this ratio is 30 % in the case of this age group.

The data that reveal the **low level digital literacy of the domestic population and employees** are sobering. In our days these are the new comparative measures in judging the information society of a country. Therefore Hungary has to face significant challenges in this area. **More than 40 % of the domestic employees, and the majority, close to 60 percent of the population, do not have any computer user skills.** It is a really surprising fact that Hungary from among the newly accessed countries was last in the ranking list in year 2005.

The older generation is practically completely excluded from the information society in Hungary. As a result of this a **special two-sided society image has evolved** during the last years. On one side there is a class of people, which practically as regards all of its indices performs in line with the European average values both in the area of infrastructure supply, usage and attitudes. They always follow the technology trends – for example as regards the usage of wideband, and the mobility facilitating technologies – which goes hand in hand with the more extensive usage of value added online contents and services. In general it may be also said about them that they were the ones, who primarily exploited the larger programs and actions (e.g. Sulinet Expressz, ensuring the availability of the wideband infrastructure, demolishing the access prices, starting the online public services), they were the winners of these initiatives.

On the other side, however, the high ratio of people belonging to the other extreme - **people who refuse the information society, and people, who are reacting to the challenges with indifference** - is very characteristic of our country. In many respect this is a very specific class. However, mostly the indifferent attitude towards the digital culture and opportunities, and their being isolated as regards societal and social aspects are characteristic of them. Unfortunately this makes the transfer

of the values and opportunities of the information society towards them more difficult.

The different levels of the digital divide in Hungary³:

Access divide	PC in the households ⁴	49%
	Home wideband	29%
Usage divide	Adult population using PCs	50%
	People using PCs at the workplace	30%
	Adult population using the internet	40%
Quality divide	Usage of e-Government services	25%
	Online banking	18%
	Participation in distance training	13%

Today the ratio of internet users within the 50+ age group is 15 %, while the ratio in the case of the 60+ age group it is already only 6 %. And according to another approach: **While 95 % of the Hungarian students do use the internet, this is true only about altogether 8 % of the pensioners.**

The vast majority of the old generation is not an active participant of the labour market. Therefore they have no chance to use the characteristic means of the information society neither at training events nor through their workplace experiences: they have not got acquainted with the advantages that are provided by the internet, they do not know how to use the modern devices, and all this reduces significantly their competitiveness and the competitiveness of our country.

The Union puts the emphasis on the following aspects. The savings of the older age group and their (e.g. labour market) activity opens new

³ See in more detail: Mr. Szilárd Molnár: The interpretation framework of the digital divide. Source: Information society, 2002, Issue 4, Pages 82-101, may be downloaded from: <http://einclusion.hu/2008-02-03/digitalis-megosztottsag/>

⁴ The source of the data is the World Internet Project 2007.

opportunities for increasing employment, for extending the informatics market, for the appearance of new services and means, as a result of which it is possible to increase competitiveness and the GDP, health expenditures may be reduced, and the life quality of the older generations may become sustainable. The unambiguous standpoint of the Union is the following: **Policies that facilitate societal integration are rentable**, since by bringing more people to the labour market they make the state financing systems more sustainable, they contribute to societal cohesion and the growth of the economy. Unfortunately **contrary to this approach, in Central-East Europe** the issue of the inclusive information society and its means system **is treated more like a social, equal opportunity issue**, and it is considered only secondarily from overall society and economic aspects.

II. The digital divide and the targets of Riga

About the WIP research in brief

The World Internet Project (WIP) is a wide ranging international research program that was organised for examining the societal impacts of the internet. It was initiated in 1999 by UCLA in California and the Communication Faculty of NTU (School of Communications Studies) in Singapore. While the earlier researches examining the spreading of the internet and the characteristics of usage focused on the users, an important innovation of WIP is that it analyses in detail the non users as well on the basis of two questionnaires. Through this it provides an opportunity for mapping the reasons of staying away, for comparing the internet users and those who are not using the worldwide web.

Briefly on representativity

Tárki used a multi-step proportionally layered, probability sample taking procedure for preparing the sample of 2007. They contacted the persons included in the sample personally. They corrected the database as regards distortion that was caused by the dropping out of addresses. During weighting they took into consideration the joint distribution of four societal-demographic factors (gender, age, education and type of settlement). Therefore the distribution of the weighted sample as regards gender, age, type of settlement and education matches well the relevant data of the 14+ population. A special database was also prepared for the 2008 e-Inclusion report, which was created with the reweighting of the data that refer to the 50+ people asked.

Source: WIP Quickreport

Already 28 countries have joined the ten year research series by today. The examination is repeated by the research groups operating in the individual countries each year depending on their financial possibilities. The WIP questionnaire that is filled in year by year in a comparable form provides an opportunity both for international comparison and for monitoring the observable changes by time in the individual countries. Hungary joined the research among the first countries. The questionnaire is filled in Hungary each year since 2001, and they inform the professional audience and the public interested in the topic in the form of quickreports after recording the data. All data recording has been done by the colleagues of the TÁRKI Social Research Institute. In the development of the questionnaires and in processing the results the researchers of BME-ITTK (Information Society Research Institute) and Research Centre of Information Society and Network

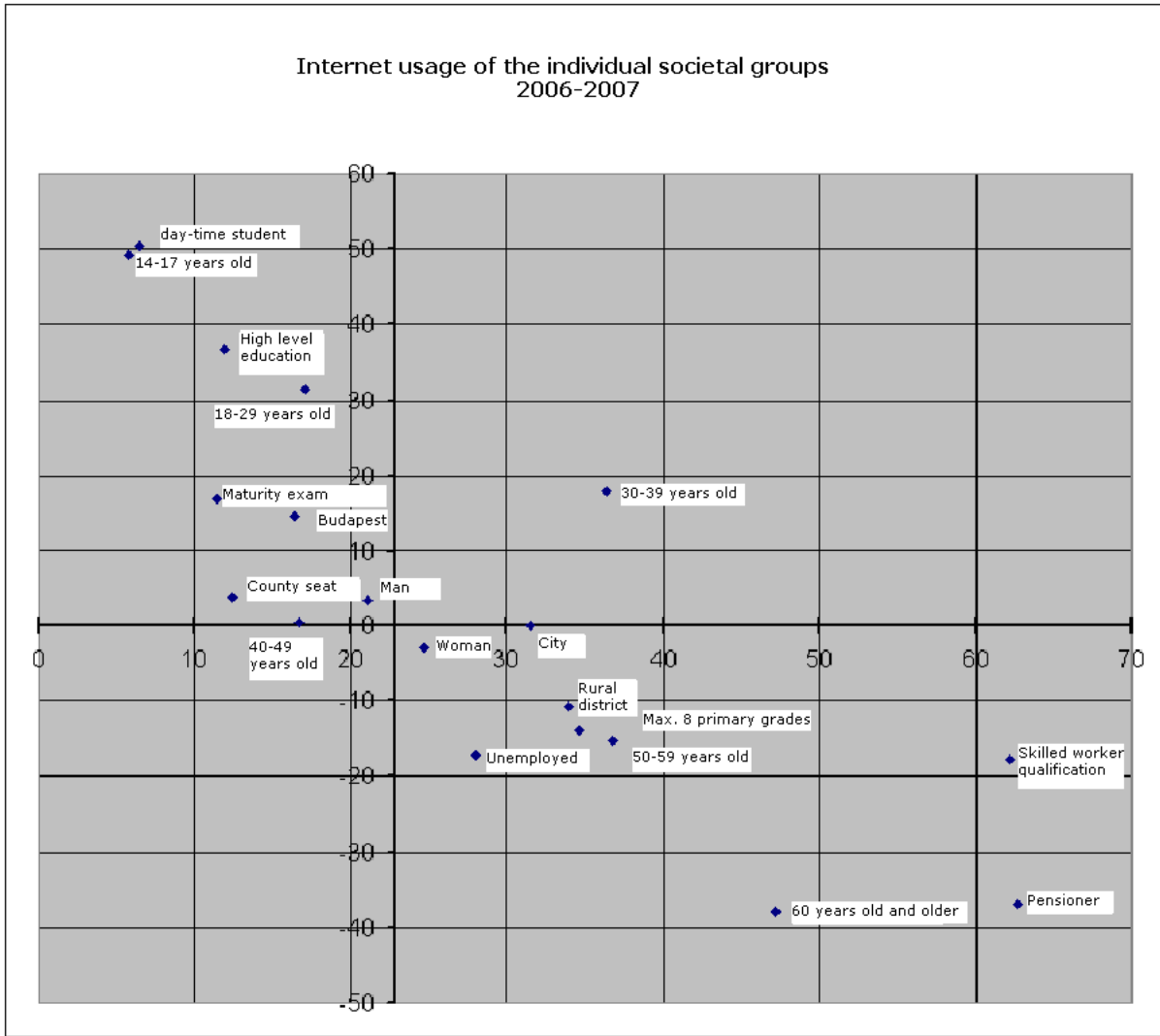
(ITHAKA) did also participate. The new data interpretation approach led to the analysis that is described in the following chapter.

1. Achieving the targets of Riga in Hungary

The decision makers of the states of the European Union accepted a target system that is made up of complex, interrelated elements at the Ministerial meeting in Riga organised in June 2006. Probably the most important is the most often quoted target, the moderation of the so-called digital divide. According to the Riga Declaration the lagging behind of the groups in disadvantageous situation from the aspect of using the information and communication technologies should be halved by 2010. Phrasing it in an other way, this means that measures have to be introduced in order to get the yet non internet user groups to join in the highest proportion possible the camp of the world wide web users. The purpose of the action is to achieve that the modern information and communication technologies, and especially the non usage of the internet should not be deposited as a new layer on the traditional societal disadvantages.

The measures may be considered to be complex, because in addition to usage they place a great emphasis on establishing the opportunities of equal access, and on implementing this in such a manner that the member countries will jointly increase the ratio of the regions that are covered by wideband internet to 90 percent (on Union level). According to the targets of Riga in the Union a breakthrough has to be achieved in the spreading of those digital skills as well that are needed for efficiently using the internet and the personal computers.

The following diagram shows two important data with the aid of a co-ordinate system on the basis of the 2007 data of the World Internet Project. The vertical axis of the diagram (Y) shows how much the internet usage of the individual societal groups deviates from the similar index of the society as a whole. While the horizontal (X) axis shows the percentage with which the internet usage of the individual groups increased compared to the previous year.



X axis: increase in the internet usage of the group between 2006 and 2007

Y axis: difference between the internet usage of the group compared to the 2007 average of the total population

It can be read from the diagram that the leaders of internet usage are the youngest people, those who are day time students, and those who have the highest education. The internet usage of these groups exceeds with even 40-50 percentage points the 45 % internet usage index of the complete domestic 14+ society. At the same time, exactly because of their high internet usage indices, the ratios of these groups increased the least.

The groups in most disadvantageous situations from the aspect of internet usage are according to the diagram the **60+ people and the pensioners**. Naturally the two groups do overlap significantly. Internet usage lags behind significantly in the group of the 50-59 years old people,

the **unemployed people, and people with low education**. In the case of these groups we measured 10-20 percentage point differences in year 2007 compared to the complete average.

From the diagram the following positive result can be also read. The internet usage increased the most dynamically in the case of people with skilled worker education and the pensioners. The advantage of the two dimension diagram is that we can straight away see the fact that in the case of these groups internet usage was very low already at the start. Therefore as regards their numbers, even if they have fewer new internet users, it appears as a significant change as regards the situation of the group.

Is it really reassuring that in the groups of the most disadvantageous situations internet usage increases the most dynamically? Is this development rate sufficient for achieving the targets of Riga set for 2010? For deciding this, at present, our only option is to examine with the aid of trend calculation the development of the internet usage of the national average and of the individual societal groups based on the previous increases.

If we accept that the Hungarian society from the aspect of the spreading of internet reached the definitely upwards arching, steep section of the S-curve, then we may assume that the 23 percent increase rate measured between 2006 and 2007 will continue up to 2010. In this case without any additional interventions the increase of the rate of internet users within the groups of people in disadvantageous situation may be maintained. The 45 percent national penetration measured in 2007 this way will increase to 55 percent by 2008 and 67 percent by 2009, and 83 by 2010. However, this calculation is not only too optimistic, but it does not take into consideration the fact that the increase in the ratio of internet users will certainly slow down within the specific societal groups, due to the simple fact that this index cannot exceed the 100 percent value.

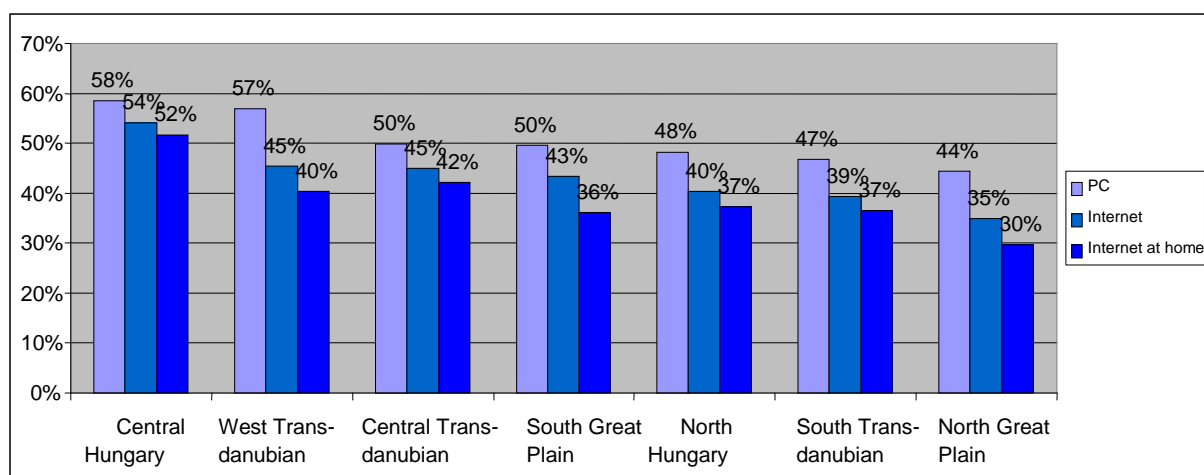
From among the groups that are in disadvantageous situations the lagging behind of those, who live in rural districts will be reduced to the minimum (according to this optimistic calculation). The situation of people with low education will develop in a similarly favourable way. While at the same time in the group of people older than 60 years, even if we take into consideration the currently intensive growth rate, only each fifth person will use the world wide web in 2010. In the group of pensioners whose average age is somewhat less, each third person will use the internet by 2010. Meanwhile from among the unemployed people only 57 percent will

use the internet, contrary to the 83 percent total society average (14+) given by the trend calculation.

In summary it can be said that the present development rate will produce positive changes in the societal composition of the group of internet users, while at the same time it cannot be considered to be sufficient for achieving the targets of Riga. The internet usage of the 60+ people was 87 percent behind the average of the complete 14+ WIP sample in 2006, and instead of the planned 44 percent the difference would continue to be 75 percent. At the same time the 40 % lagging behind of unemployed people would be modified only to 31 percent compared to the planned 20 percent.

2. The geographic dimension of the digital divide

With the spreading of internet the significance of geographical distances decreases gradually. However, the impact of this process is two-sided from the aspect of the regions of disadvantageous situation. With the aid of the world wide web we may access information, we may apply for a passport, we may use bank services, or we may even order goods. At the same time the disadvantage of those, who do not use any PC and the internet will steadily increase. It is more and more difficult to get a job in the labour market without appropriate computer skills.

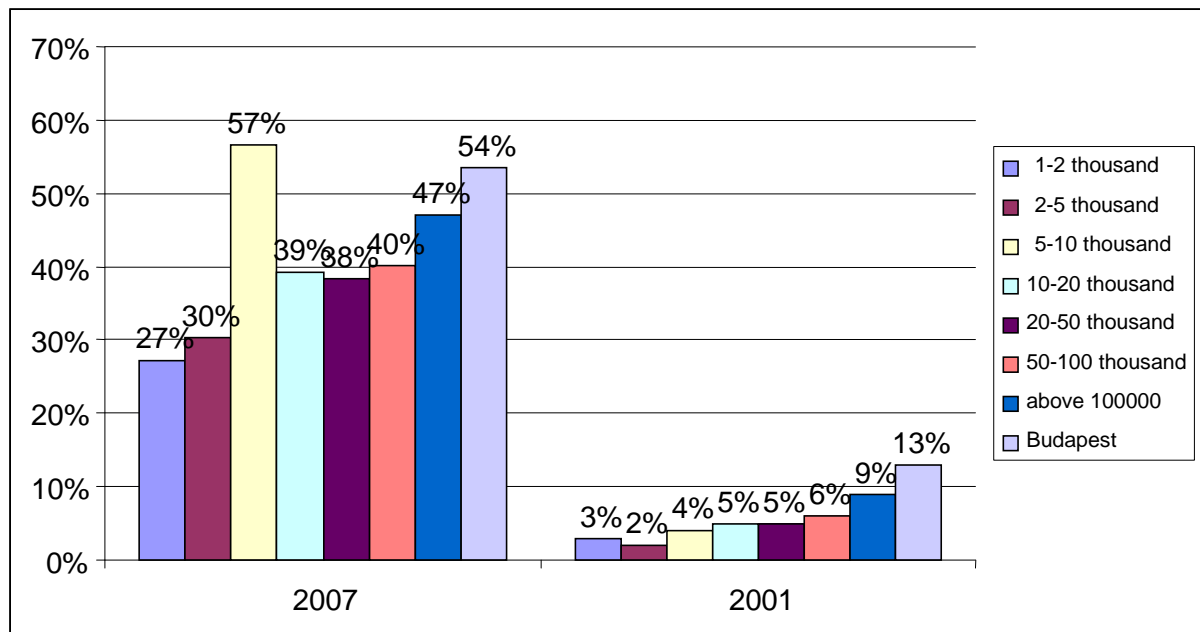


In the regions of the country that are most developed from the aspect of internet and computer usage the usage of PCs exceeds 50 %. In each of the Central Transdanubian, Central Hungarian, and the West Transdanubian regions the usage of the internet exceeds 45 percent. In the case of Central Hungary the value of internet usage even crossed the 50 percent threshold, thus the number of users in the 14+ age group exceeded the number of non users.

Examining the internet connections existing in the homes reveals the greatest difference between the specific regions. In the regions least supplied with home internet connections less than each third asked person had an access in his/her home. Contrary to this in the Central Hungarian region this value also exceeds fifty percents. It is close to 25 percents higher than the national average.

3. Internet usage and the settlement types

After the turn of the millennium already not only the brave early users or according to the terminology of diffusion theory the innovators had access to the world wide web, but according to the 2001 survey 17 percent of the 14+ population used the internet with more or less regularity. At the same time only five percent of them indicated his/her home as the place of internet usage.



Settlement sizes and the ratio of internet users

As it had been shown by several other researches as well, **the size of the settlement defines to a great extent the spreading of the internet.** On the basis of the diagram that shows the internet access of the households based on 2001 and 2007 data it can be well seen how the ratio of connected homes decreases as the size of the settlements decreases.

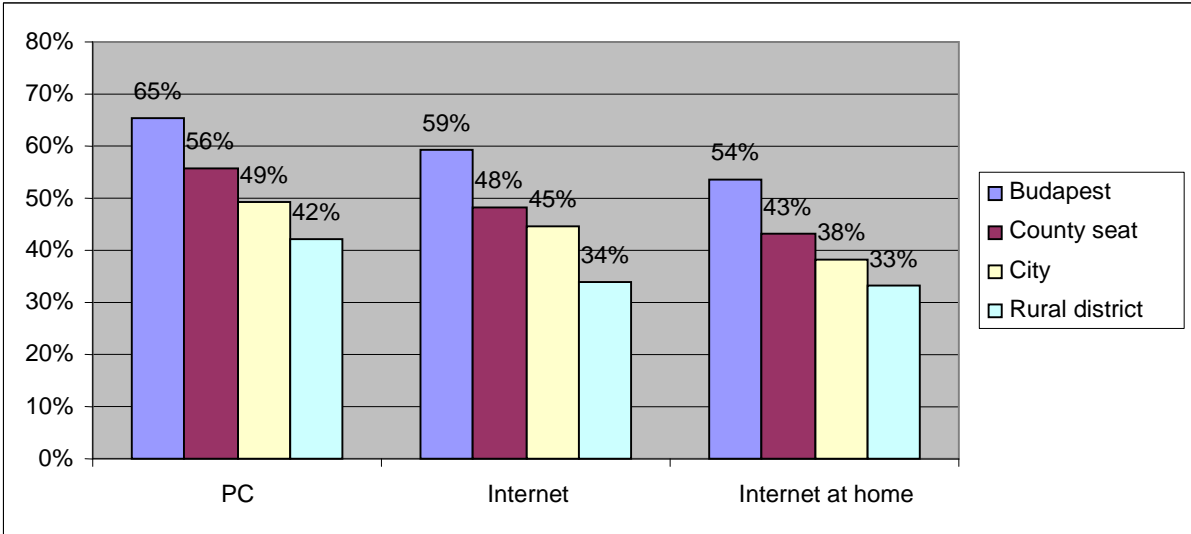
During the past seven years the difference between the capital that was always leading and the smallest villages gradually decreased as regards its ratios. In Budapest already more than half of the households are connected to the internet. This ratio in the case of the smallest settlements does not even reach 30 percent. This means still an about one and a half time difference between the settlement types. According to the data of seven years ago the difference between the smallest settlements and the capital was threefold-fourfold.

Seven years ago home internet access was equal with the slow, unreliable, dial-up connection that has been mostly pushed out from the market by today. With the spreading of ADSL and the cable internet technology in our days already more than 90 percent of the web users is connected through wideband connections. However, the differences that appear in bandwidth, which is often mentioned as the wideband digital divide, did not disappear fully. Till today there are significant differences between the capital and the larger country-side cities, and the smaller

villages as regards their available infrastructures. This is the reason why close to 8 percent of the internet users in the rural districts still uses the dial-up internet, while from one hundred Budapest internet users only two is connected from his/her home through dial-up based internet access.

The situation is even more differentiated if we take into consideration that the territorial coverage of wideband internet is not 100 % even today. ADSL and cable access is ensured by today already not only in the larger cities. Nevertheless there are even today several hundred such settlements, where the wideband, lump sum fee connection is not included among the selectable options. On this situation even the third generation wideband mobile internet providing networks did not improve either. Although the broadcasting towers are covering not only the larger cities and the regions that are important from the aspects of tourism, nevertheless the small villages that are located in the most disadvantageous regions had not been drawn on the wideband maps of the mobile service providers. It is not by chance that among the best practices of the report the WiFi village program is also included, since this program improves the infrastructure available to these disadvantageous settlements based on the wireless internet access technology.

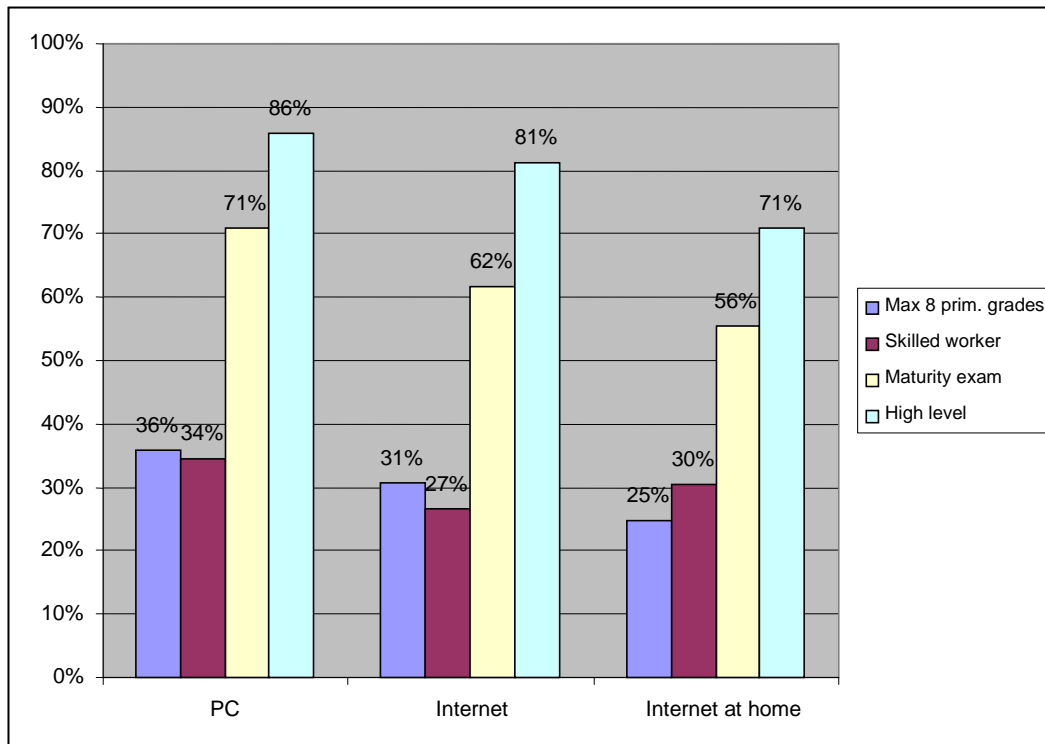
The difference between the settlement types appears not only in home internet access, but in the spreading of PCs as well. The following diagram shows on the basis of the 2007 data, broken down by settlement types, the data of PC supply, internet usage and the home access that has been already discussed in detail.



The columns that can be seen on the diagram clearly show the differences between Budapest, the county seats and cities, and the rural districts. In the case of all the three indices differences of the same direction can be observed. They describe the people living in the rural districts consistently with access and usage indices that are significantly lower. All this is interrelated with the other socio-demographic factors that are closely tied to the settlement structure of Hungary: the population of the villages is characteristically older, with lower education, and the ratio of unemployed people and people living under bad financial conditions is higher. The phenomenon characteristic of the villages and rural districts described above is alarming, because several other basic services (among others public administration, certain public services, e.g. post, or commercial units) are increasingly concentrated in the higher level settlement types.

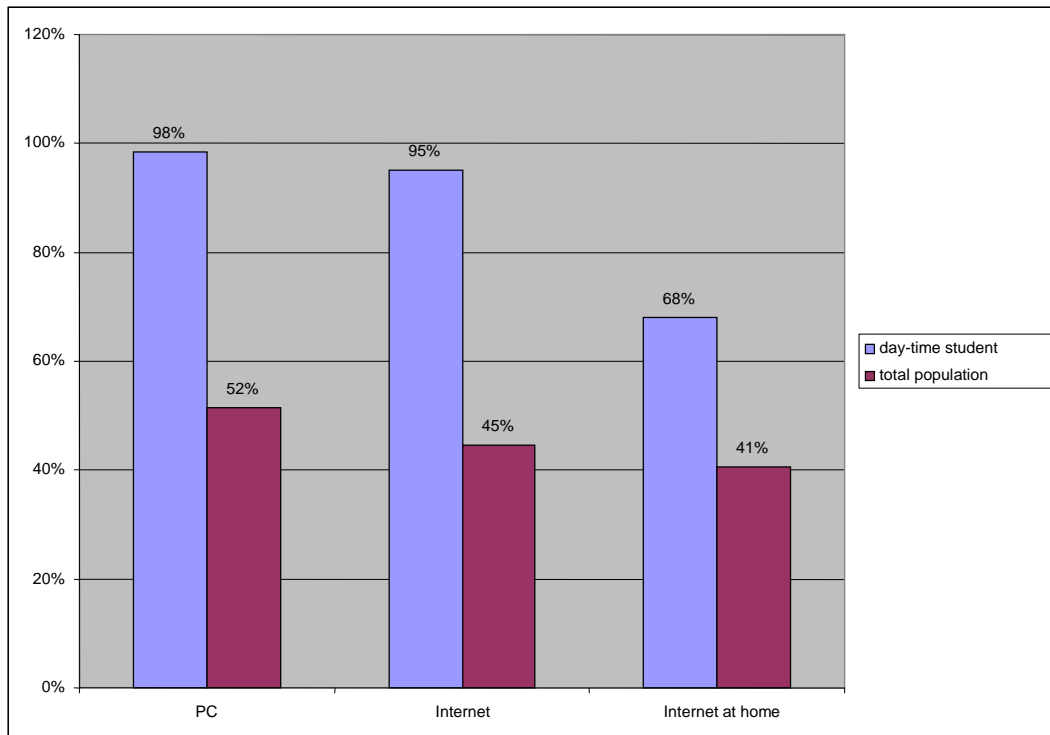
4. The situation of unemployed people and people with low education

In addition to the settlement types the education level of those asked was the most important factor that divided the Hungarian society into digital citizens and the group of those people, who are not using the internet. The differences that appeared along the education level accompanied the last seven years of the research series. However, while in 2001 internet usage was practically exclusively characteristic of those with higher education, by 2007 the dividing impact of the education level has been significantly moderated, and internet usage became far more general.



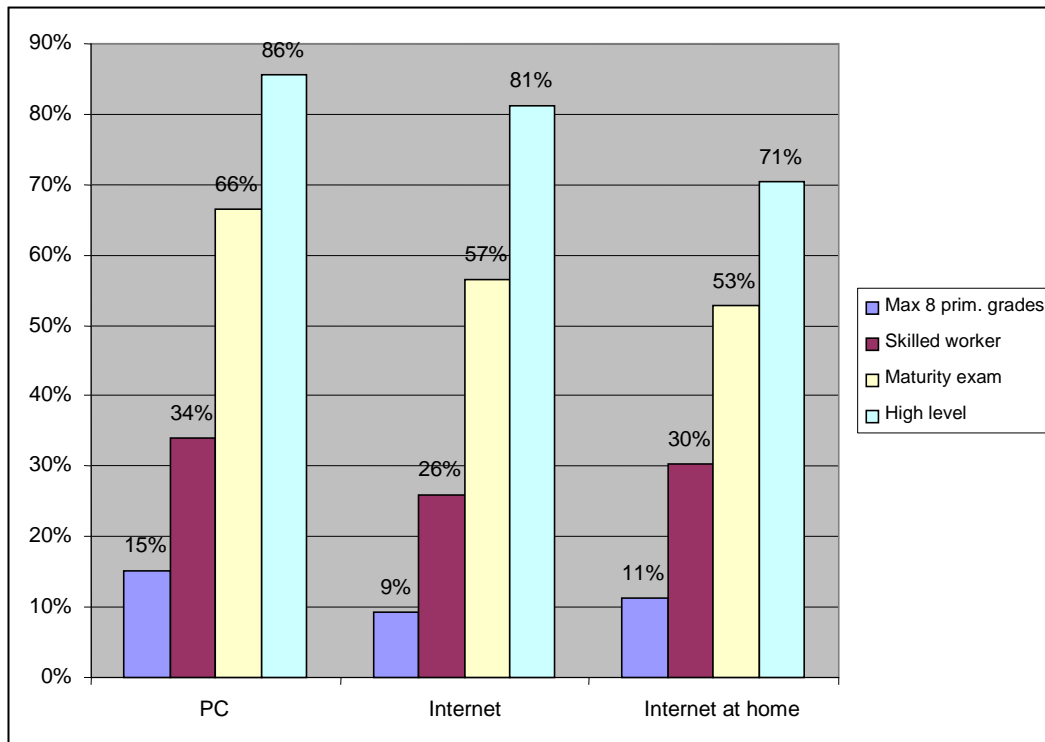
It can be seen on the above diagram that the usage of PCs and the internet, and the ratio of those accessing the internet from their home also increase, the higher the education level is. The difference is seemingly tense between the two lower (8 primary grade and skilled worker), and the two higher education level groups (maturity exam, high level education).

The Hungarian education institutions due to the results of the successful school infrastructure program (Sulinet) – which was successful in international comparison as well - without exception have computers and internet connections. At the same time the number of student per computer, and the development level of their computer stock is still behind the desired level. We have already drawn the attention several times to the additional deficiency of the domestic education practice that the usage of computers has not been incorporated into the non specialised subjects. As a result of this the students meet the computer mostly exclusively at the computer technology classes.



In spite of the deficiencies of education, the students do use the computer and the internet practically without exception. The ratio of PC usage among them is close to 100 percent, compared to the national average of 52 percent that was measured in 2007. Internet usage shows a similarly positive picture. In this case also the number of users is double of the average of the total population (95 percent, compared to 45 %). The relatively higher ratio of home internet connections reflects that families are more inclined to purchase computers and subscribe to the internet if they are raising school age children. This is verified by the data as well. The day time faculty attending students raised in the households have a positive impact on the spreading of the computers and the internet.

We had seen how high is the rate of the usage of the internet and computers among the students. For this reason it is worthwhile to compare the people from the aspect of their highest education in such a manner that we filter out from among them those, who are still studying at a day-time faculty of a school.



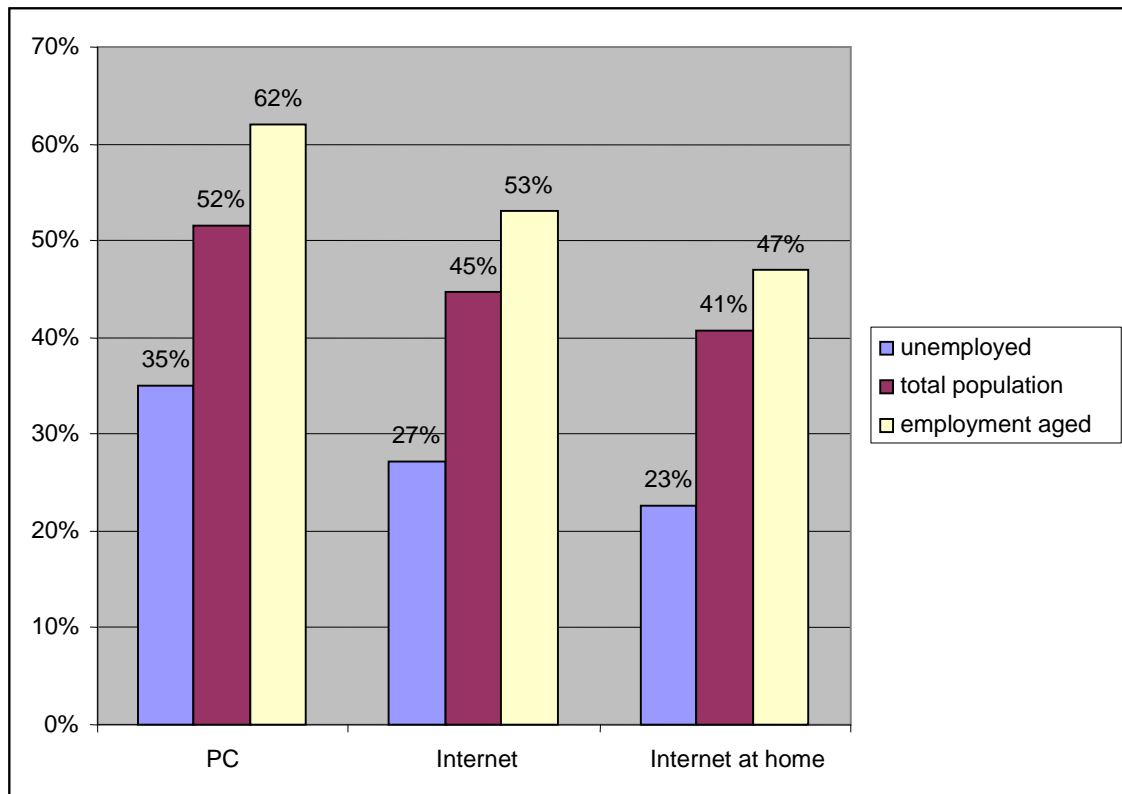
Digital preparedness in the Hungarian households without taking into consideration the day-time faculty students

The diagram prepared this way demonstrates far more illustratively the correlation between computer/internet usage and the education level. It can be well seen that the people, who suspended their school education after the 8 primary grades temporarily or permanently in respect of all of the indices lag behind those people, who have medium and/or high level education.

These differences are not justified at all by the fact that people of lower education need to use internet less for their work. The worldwide web with the expansion of the group of users on one side today provides interesting contents not only for young users with high education. And on the other side the usage of computers appears in an increasing percentage of the jobs. While previously computers were primarily connected to intellectual jobs, by today a warehouse loading worker or a bus driver has to be also able to use a computer, for their work they need to know the device.

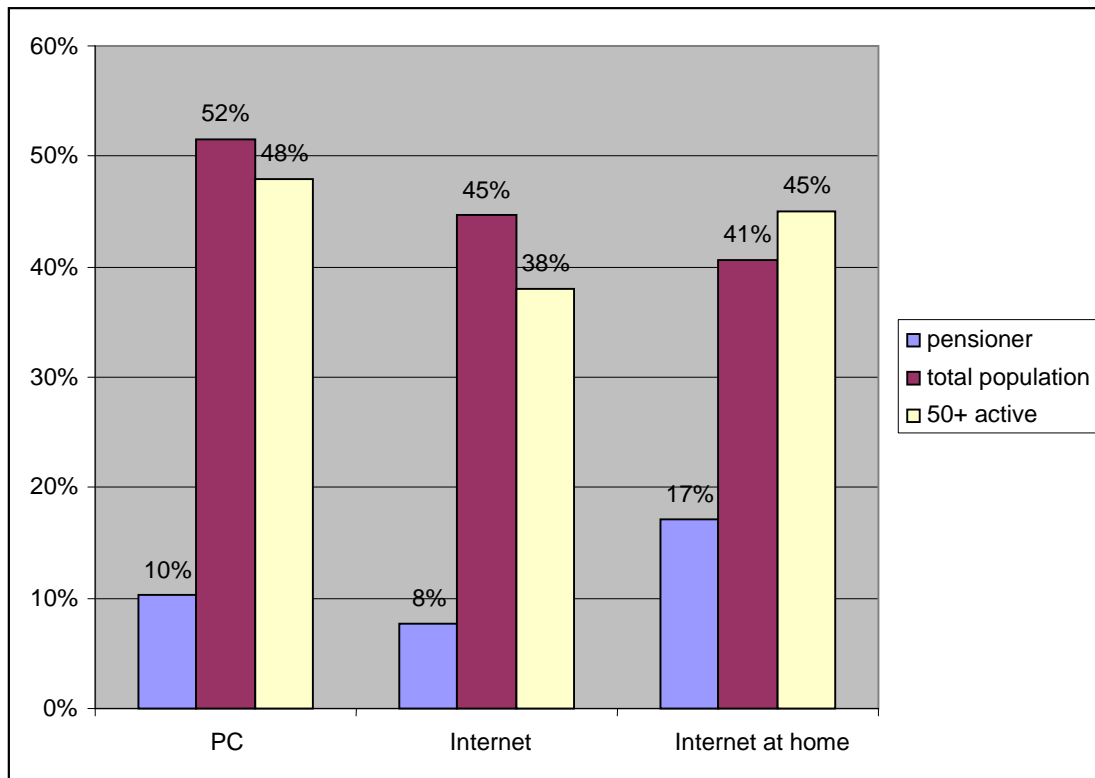
The ICT statistics of the European Union regularly compares the computer and internet usage indices of the unemployed people with the similar indices of the complete society. In Hungary the difference between the two values is significant. According to our data in respect of both

aspects the unemployed people are lagging behind the average of the population as a whole with the order of 30 percent.



The differences are even more striking if we compare the unemployed people with the workable age (15-62 year) population. The above diagram shows that those people asked, who consider themselves unemployed, are significantly lagging behind the average of the given age group. From this, even though we may not conclude that the unemployed people not using the computer lost their jobs because they did not know well enough how the new information and communication devices should be used, nevertheless we may assume on the basis of the data that in the lack of appropriate knowledge it is difficult for them to find their way back to the labour market.

The workplace also explains to a great extent the development of the computer and internet usage of the 50+ people asked. The older age group, as it can be seen on the following diagram as well, uses the new information and communication technologies with a ratio that is lower than that of the population as a whole.



However, it is surprising if we look at those 50+ people, who are active from the aspect of the labour market (no matter whether they are employees or entrepreneurs) that their computer and internet usage indices are near to the average of the population as a whole. For this reason we have analysed in detail the 50+ active people. We found that this group is nearer to the internet users practically in respect of all the dimensions, in their group the ratio of men living in cities having high education is higher.

We also prepared a multi-variable model, with the aid of which we have compared the explanation power of the impact of several factors. In addition to internet usage we examined a number of socio-demographic factors (age, education, work execution, etc.). According to the model old age internet usage had been influenced by two factors: economic activity and the highest education. These two factors explain close to one fourth of the development of internet usage. Comparing the impact of the strength of the variables it can be said that the greatest impact is exerted by education. This is followed by economic activity (with approximately two-thirds of the explanatory power of education).

III. ICT and the aging society

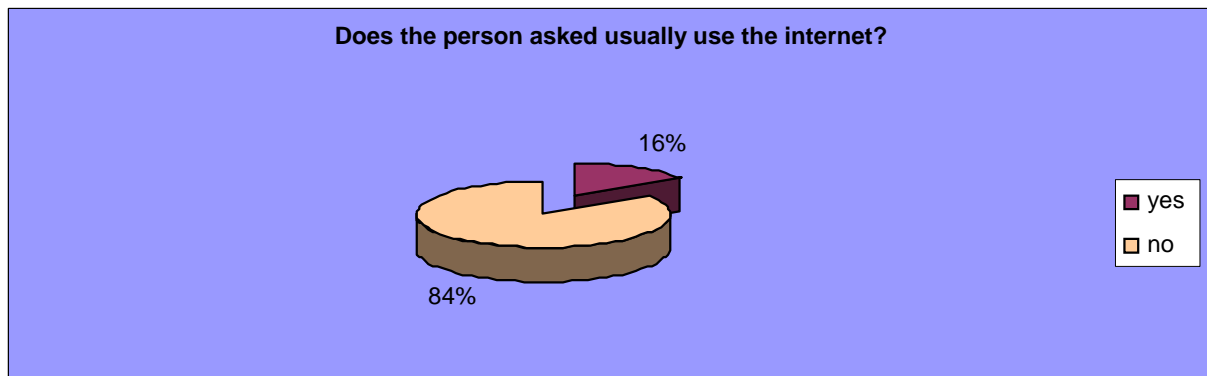
According to regional break down most of the people (28.5 %) live in the Central Hungarian region, 16 % live in the North Great Plain, 15 % in the South Great Plain, and 10 % live in the remaining four regions each. On the basis of settlement type most people live in rural districts (33%), this is followed by those, who live in the county seats (26%) and in the cities (22.5 %), and the last ones are those, who live in Budapest (18.6 %).⁵

According to gender the majority of the people are women (58 %). According to family status the majority of the people are married (59 %), 25 % of the people are widows, 8.5 % of them are divorced or live separately from their partner in life, about 5 % of them said that they are single, and the remaining 2.7 % live in a partner in life relationship.

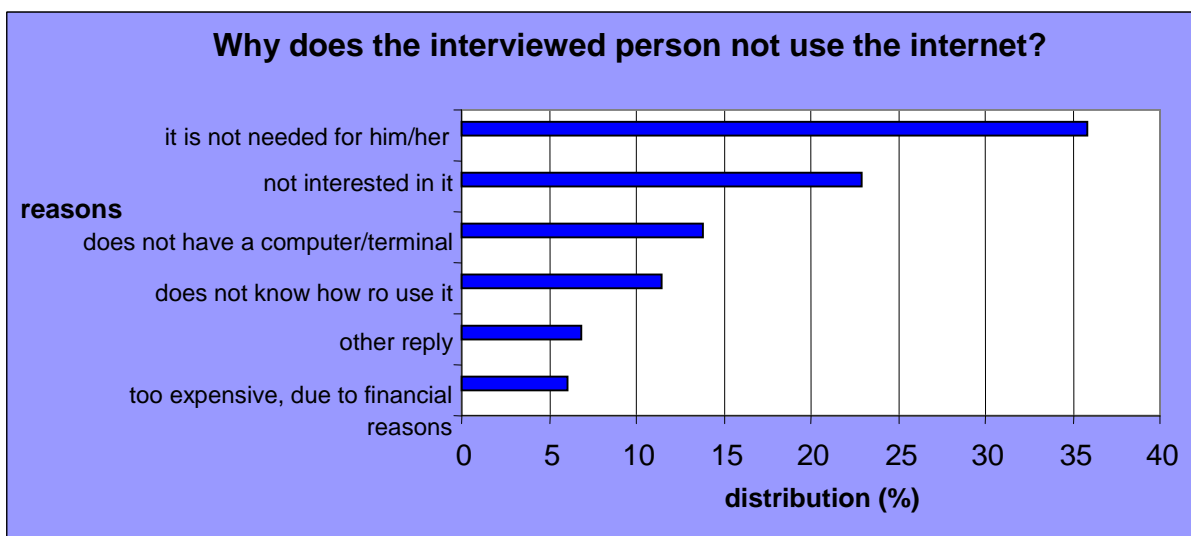
1. What is the explanation of internet usage and internet non usage?

In the following we will make an effort to identify the factors that influence the internet usage of the old people, since only 16 % (229 people) of the 50+ people asked said that they used to use the internet (that is 1221 persons, 84 % does not).

⁵ The number of people above 50 in the sample is 1451 persons. On the basis of age group 43 % of them are between 50 and 60, a little bit more than one fourth of them (27 %) is between 61 and 70, 22 % of them is between 71 and 80, and 8 % of them is between 81 and 90, and 9 persons, that is 0.6 % of them is older than 90.



If we look at the diagram that shows the distribution of the answers that were given by the people asked, then it can be seen well that the most frequently given reason was "he/she does not need it", or "he/she is not interested".. If we add to this the frequency of „he/she does not know how to use it", then we can conclude that the reasons why the old people stay away from the internet are mostly cognitive type of reasons, and not financial ones.



However, we may approach the cognitive type of obstacles, or we may find out their existence or the lack of them from an other aspect as well. Starting out from the assumption that intellectual activity-inactivity may appear in different leisure time activities, with the aid of cluster analysis we may form groups. The following activates are characteristic of one of the groups, the group which we finally named the group of "intellectually active": its members read newspaper daily, at least once a week they

read a book, listen to music, meet friends/family members, and they use the phone several times a week.. This group was represented in the sample in the ratio of 40 %. Contrary to this the group that was named by us "intellectually inactive" execute the above mentioned activities maximum once a week or even rarer than this, and their ratio within the sample is 60 %...

Leisure time activities	Groups formed on the basis of time spending	
	Intellectually active	Intellectually inactive
How often are you reading books?	weekly once	monthly once
How often are you listening to music?	weekly once	never
How often are you reading newspapers?	each day	weekly once
How often are you phoning?	several times a week	weekly once
How often are you spending your time with your friends?	weekly once	monthly once
Number of elements	583 (40.7 %)	849 (59.3 %)

(Source: WIP, 50+ sub-sample, 2007)

In the following, stepping beyond the subjective answers of the people asked, we will try to find out with regression analysis⁶ the statistically determining factors of internet usage characteristic of old people.

In addition to the traditionally applied socio-demographic variables we involved into the regression model prepared for explaining the internet

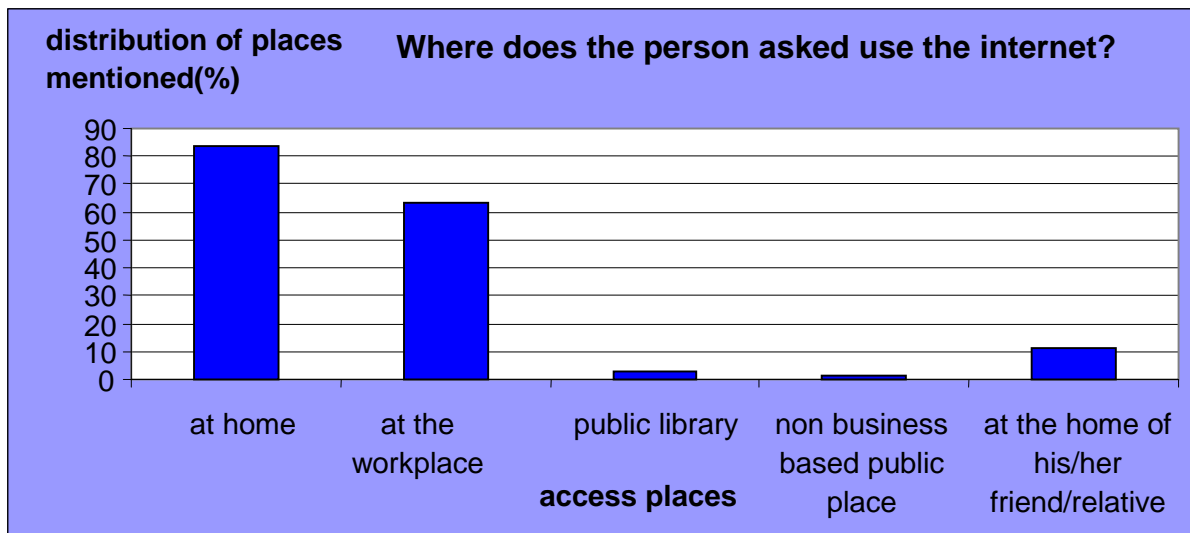
⁶ Linear regression. The essence of this statistical procedure is that with its aid an explanatory model may be prepared. We are explaining the behaviour, correlation, spread of a high measurement level dependant variable with ordinal or higher level independent variables. We are able to determine the value of the constant, or the reference, compared to which the value of the independent variables decrease or increase (that is the impact is negative or positive. This is value B – the standardised version of this is Beta, which shows the explanatory power of the independent variable), and it is possible to determine whether the impact of the independent variable is significant or not. The R², the so-called undistorted correlation coefficient, shows the explanatory power of the model (that is of all the independent variables) in percents.

usage of the old people the above intellectual activity indicating variable as well. This way we may prepare a more differentiated cause-result analysis for explaining the staying away from the internet. The list of the variables used are the following: education, intellectual activity, whether the replying person works or not, how many people are there in his/her household, his/her monthly net income, settlement type, age, gender.

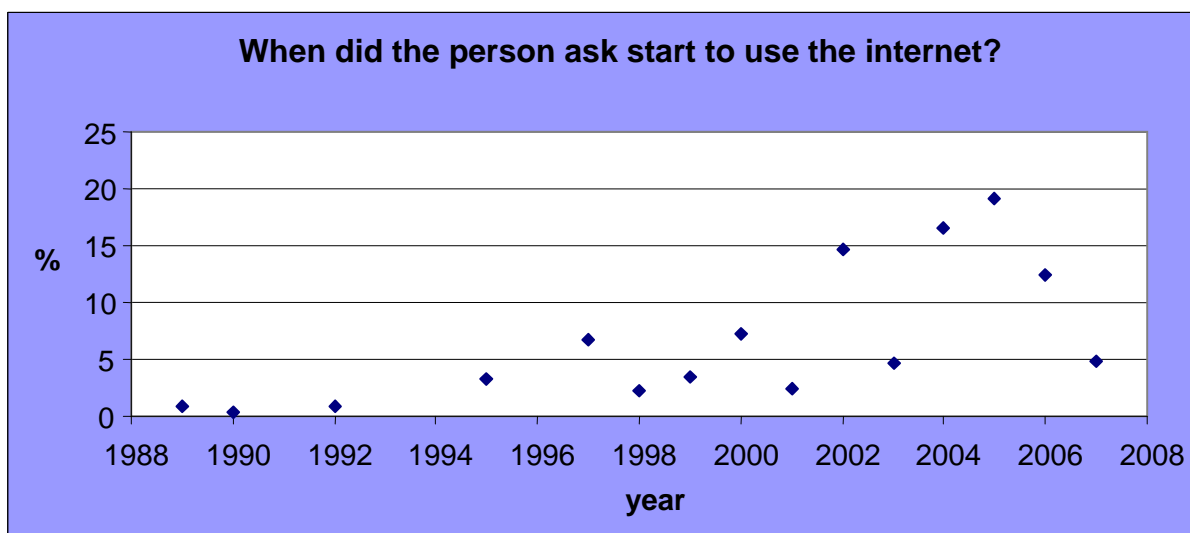
The impact of two variables (settlement type, age, gender) was not significant. The total explanatory power of the regression model operated this way, that is, R^2 is 34 %, and this may be considered to be good. The strongest explanatory power was exerted by education (Beta=38 %), that is the higher the education of the person asked was, the more likely it was that he/she is an internet user. This is followed by activity (Beta=24 %), that is those, who work are more likely to be also web users. The third important factor is intellectual activity (Beta=9 %), the fourth one is the size of the household (Beta=7 %) and the last one is income (Beta=5%). **If we wish to draw the profile of a typical old age internet user, then we may say that he/she has minimum a maturity exam, he/she works at present, he/she is intellectually active, he/she lives in a multi-person household, and he/she has a higher income. At the same time it is an interesting result that the gender of the user and the type of the settlement he/she lives in are not significant factors of internet usage and non usage.**

Where and how often do old people use the internet?

The answer to this question is that old people mostly use the internet at home and at the workplace. The number and ratio of those was minimal, who did this at friends, relatives or public access points.



The majority of them (57 %) does sit several times a day in front of the internet, and an additional 24 % of them connects the world wide web several times each week. They evaluate their internet user skills 2.3 on the average, on a scale of 4⁷. One fourth of them started to use the internet before 2000, and a further 20 % of them between 2001 and 2003, and the rest of them later than this. If we look at this by years, then in the years of 2002, 2004 and 2005 relatively more people joined the group of internet users, but so far we cannot talk about an unambiguously increasing tendency yet.



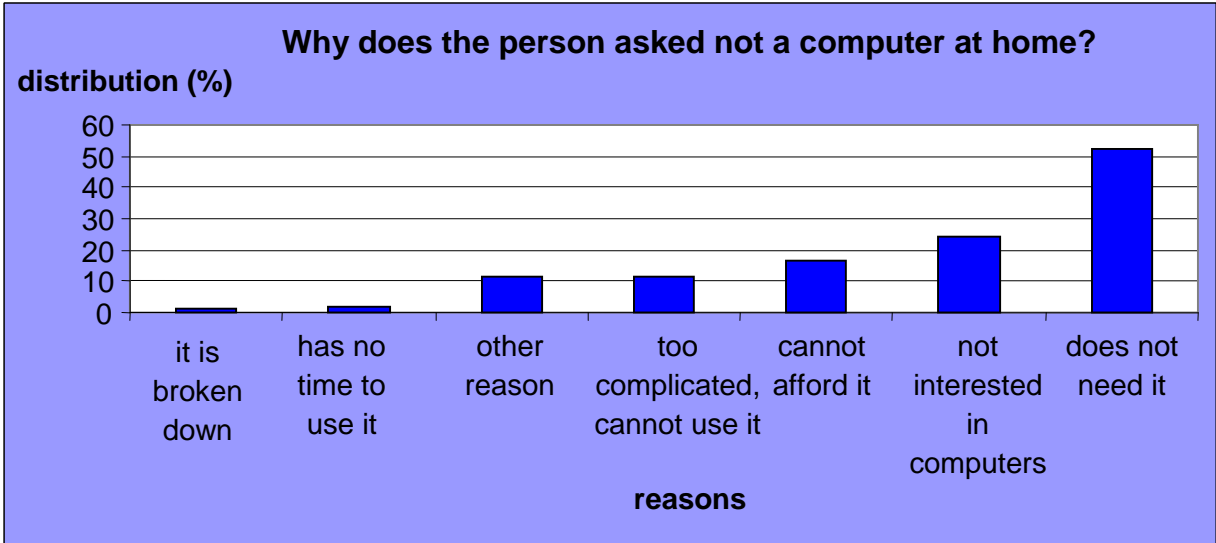
⁷ Interpreting the original response options - from "weak" to "excellent" - as indices.

Subtracting from the year of starting to use the internet, the year of birth of those asked, we are getting 53 years on the average. This means the age group examined here started to get acquainted with the internet at this age on the average. However, we have even such a person in the sample, who illustrates well that it is not late to start to acquire the basis even at the age of 87.

The questionnaire asked in detail the purpose of use as well, but from among these we will mention only those purposes here that were most often marked by the people asked (that is those internet activities that are done at least weekly). On the basis of this it can be said that the old generation mostly used to browse, read emails, read news, search/check facts, and to send attachments.

Characteristics of computer usage, and their background reasons

Somewhat more people use regularly or occasionally computers than the internet, about 20 % (290 persons) from those 50+ people, whom we asked. Among the subjective reasons given here, the same way as in the case of the internet the most frequent ones were the following "he/she does not need it", "not interested in the opportunity to answer".



The people asked evaluated at 2.4 on the average their computer technology skills on a scale of 4. This is 0.1 higher than the value given in the case of the internet.

If we are running the previously introduced regression model for computer usage as well, that is we try to explain usage with the already introduced independent variables, we are getting quite similar results. The important difference is that computer usage is already not determined significantly by the financial situations either. The determining factors ranked according to their explanatory powers are the following: education (Beta=40 %), whether the asked person works (Beta=30 %), intellectual activity (13 %), and the number of persons in the household in which he/she lives (8 %). The total explanatory power of the regression model is 40%, and this can be said to be rather good. **Therefore the profile of the typical 50+ computer user is very similar to the profile of the typical internet user (higher education, works, intellectually active, lives in a multi-person household).**

2. Societal relations of the older people

The database offers an opportunity also to examine in the case of the 50+ age group their societal embeddedness, relationships, their time spent with the family and friends. The data show well that in the modern societies the multi-generation family model is on the way to disappear. Two-thirds of the 50+ people live either in a one person or a two person household, and according to the data each fifth old person asked lives alone.

In spite of the generations living apart, more than half of them keeps contact with his/her family with daily regularity. An other 25 per cent deals each week once or several times with his/her family. However, among the 50+ people somewhat more than ten percent spends the time together with the members of his/her family monthly once or even rarer. On weekly level these relationships allow 17.4 hours of passing the time together.

Naturally the size of the household correlated with the time that is spent with the family. Those living alone spend 8 hours with their families each week on the average, while in the 3-5 person households this time approaches even a complete day (24 hours). Those older people asked,

who keep contact with their families on daily level, spend 26 hours on the average with joint programs. Contrary to this those people, who meet their families only with weekly or monthly frequency, spend 3-5 hours together each week.

Societal relationships are well measured - in addition to the time spent with the family - through the time that is allocated to the friends. The 50+ people spend somewhat more than 3 and a half hours with their friends each week on the average. Close to one third (29 percent) of those asked do not spend any time with friends. While only one third of the 50+ people spend some time with their friends with at least weekly regularity. From ten 50+ person asked only one meets his/her friends with daily regularity.

The time spent jointly with the friends changes along with the regularity of the meetings. In the case of people, who meet their friends only several times a month only three hours are spent with joint programs organised with the friends, while those who have daily contact with their friends spend twice as much time jointly.

The most frequent internet usage is connected to communication, with email being the most characteristic online activity from the start of the WIP research. In spite of this the data do not show a strong correlation between internet usage and societal relations. The regularity of contact keeping with the friends and families did not have any impact on internet usage. The internet users also spend the same time with their friends and families on the average, therefore the spread of the averages is also very similar.

3. Full value internet usage above the age of 50

Internet users older than 50 years handle the computer and the internet less self-confidently than the people asked in the complete 14+ sample. They evaluate especially their internet usage skills lower. More than half of the 50+ internet users characterised their own user skills with the "not bad" and "weak" adjectives.

Internet and PC usage skills of the old people:

	Complete sample		50+ sample	
	Internet	PC	Internet	PC
Excellent	12	11	6	8
Good	47	46	37	41
Not bad	30	29	33	29
Weak	11	14	24	22
	100	100	100	100

(Source: WIP, 50+ sub-sample, 2007)

The worse computer and internet usage indices are not surprising, since among the older users the ratio of starters is significantly greater than the average. The majority of the users of today started to use computers and the internet in the past 3-4 years.

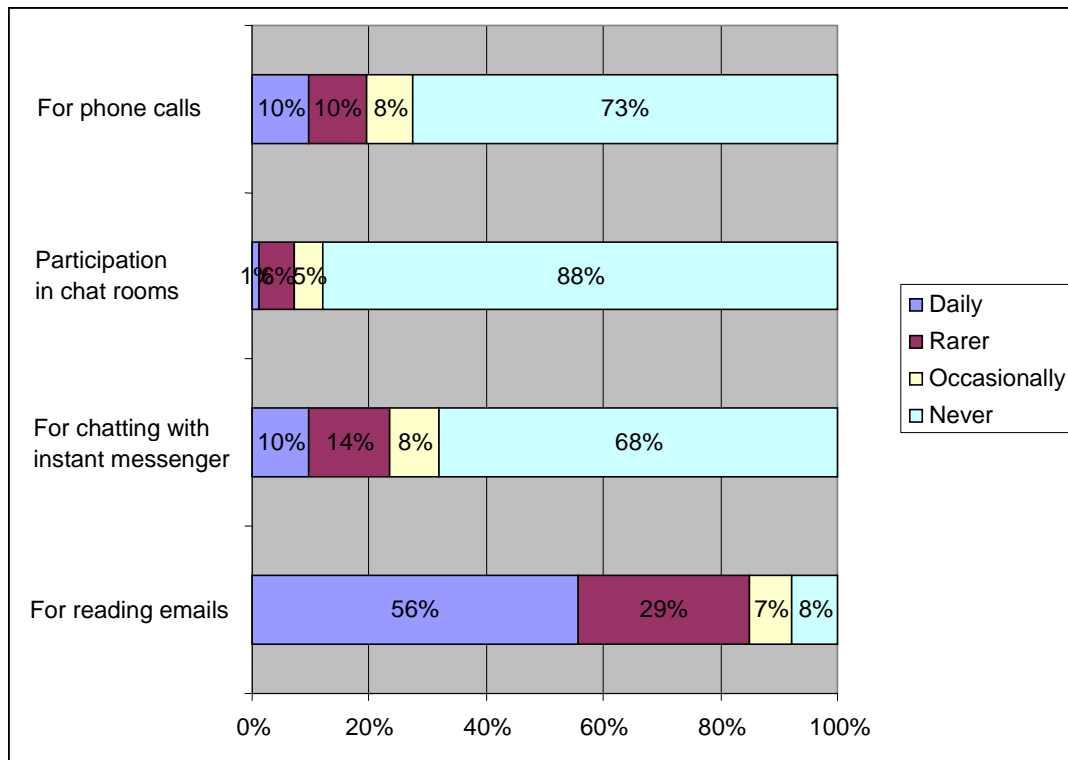
From all the above we could assume that the starter, less self-confident internet users are using the internet for significantly less purposes. However, the data do not support this. They do certain activities in a higher ratio than the user average of the complete 14+ population.

Top 10 internet activities above 50

1	Reading emails	92 %
2	Searching news	86 %
3	Obtaining information about a product	83 %
4	Searching and checking facts and data	81 %
5	Searching travelling related information	79 %
6	Browsing, surfing	76 %
7	Looking for the definition of a word	67 %
8	Searching health information	66 %
9	Sending attachments	62 %
10	Searching for jokes, caricatures, and other humorous contents	44 %

(Source: WIP, 50+ sub-sample, 2007)

The above table ranks those activities that are done with more or less regularity by the 50+ internet users. In the case of certain less frequent activities, like internet banking or electronically paying the invoices, they even surpass the ratio of the users of these services of the complete user group. However, it belongs to the truth that as regards the frequency of executing the specific activities they are characteristically below the average of the complete internet user group.

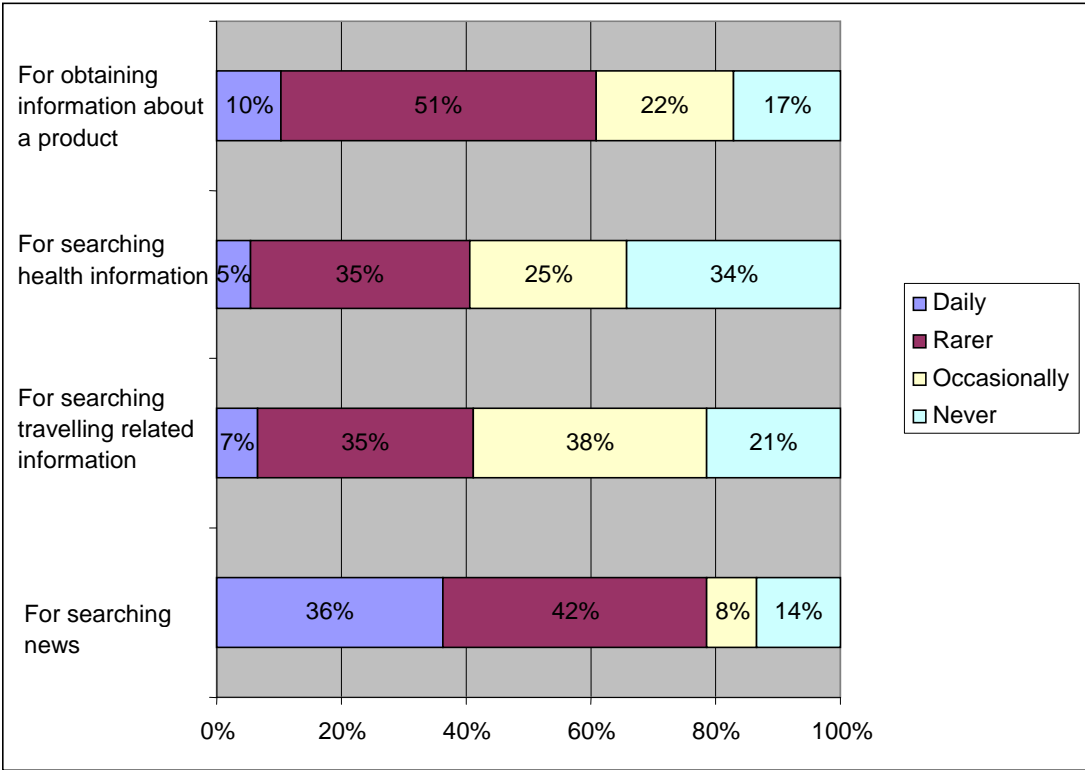


On the above diagram it can be seen that even such novel communication forms that are targeting the young people are not foreign to the 50+ internet users, e.g. the chat rooms or internet phoning. However, it can be also seen that we may meet more often such older internet users, who have never tried chatting yet, and the ratio of daily chatters is also lower with 13 percentage points.

	For reading emails	For chatting with instant messenger	For participation in chat rooms	For phone calls
Daily	-4,13	-13,16	-2,60	1,64
Rarer	0,78	-8,06	-7,67	-2,20
Occasionally	3,75	-1,45	-5,57	-0,37
Never	-0,40	22,68	15,84	0,93

(Source: WIP, 50+ sub-sample, 2007)

In connection with the different internet based information searching activities we may observe similar values. The majority of the older internet users use with more or less regularity the internet as an information source. (The interpretation of the table is assisted by the fact that the sum of the individual columns is zero. The values show the percentage points with which the values indicated at the specific frequencies are behind or are above the complete average of the internet users.)



The following table shows that the frequency of using the specific information sources is not lagging behind in the case of the 50+ internet users compared to the 14+ users.

	For searching the news	For searching travelling related information	For searching health information	For obtaining information about a product
Daily	1.20	1.79	0.85	-1.87

Rarer	-1.48	-2.06	-1.30	-2.87
Occasionally	-1.48	1.38	1.11	4.73
Never	1.77	-1.11	-0.66	0.01

(Source: WIP, 50+ sub-sample, 2007)

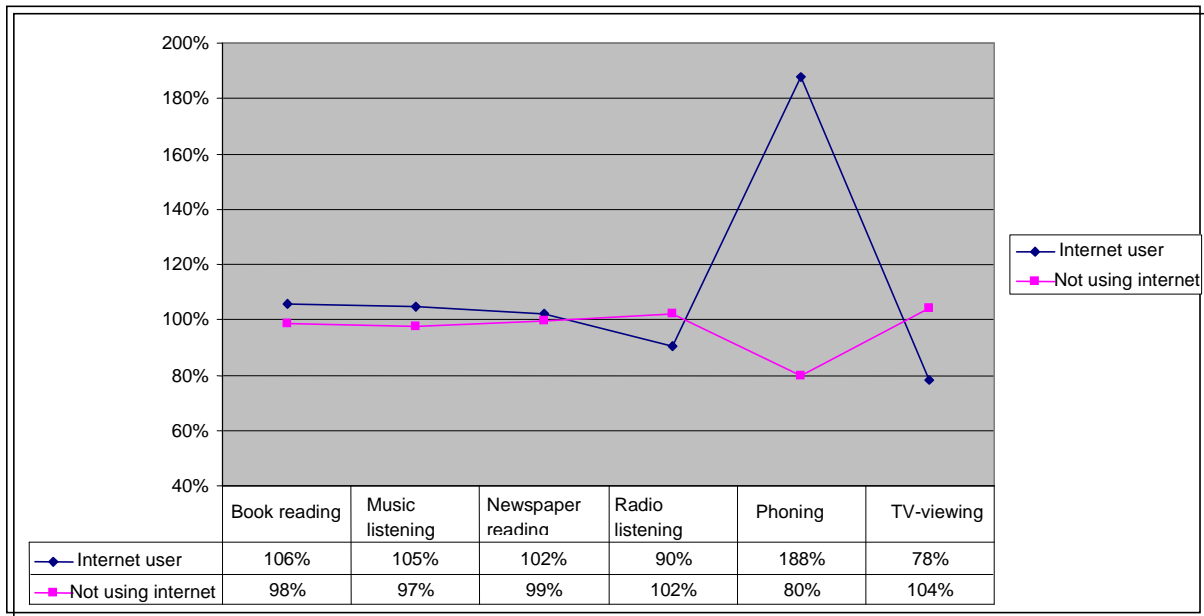
4. Time spent with entertainment

According to the WIP database the people above the age of fifty spend the most time with viewing television from among the different entertainment options. The people asked spend more than 18 hours in front of the television weekly on the average, that is, on daily level close to 2.6 hours. They spend somewhat less time with listening to the radio, weekly 14 hours. They spend an additional 4-7 hours with reading books and newspapers, and listening to music. They talk over the phone about 1 hour 20 minutes on the average a week.

Activity	Number of hours per week
Reading books	4.7
Listening to music	6.7
Reading newspapers	3.8
Listening to the radio	14.2
Phoning	1.3
TV viewing	18.5

(Source: WIP, 50+ sub-sample, 2007)

Here we are comparing the 50+ internet users with those, who are not using the internet, and we may see that most of the activities they carry on with a similar intensity on the average.



We may see significant differences in the case of two entertainment forms. The internet users view the television less, that is, they spend about four hours less with this activity each week than the average of the 50+ people. As regards its ratios the greatest difference can be seen in the phoning habits. The internet users spend nearly twice as much time with phoning each week.

IV. Best practices in Hungary

1. The events of the "Digital Spring"

The topic and prestige of the information society went into a "deep fly" in Hungary during the last three years both in political and in societal sense. Informatics lost its special appeal. The internet became a public road network, the mixture of highways and dirty roads. The net gurus became managers, consultants, and already only a handful of obsessed people deal with the societal projections of the internet.

The Hungarian situation is peculiar: the closing of the Ministry of Informatics and Telecommunication (IHM), the shrinking of governmental orders, the low level of population internet usage, the significant decline of the market building drive of the IT companies, the unfavourable economic situation, the dark vision, all these influenced the information society activities and public discussions.

Inforum around the turn of the millennium was a leader in the area of IT political and professional interest enforcement and in expanding the political conditions. It played a significant role in the establishment of IHM, and in the setting up of the IT and Telecommunication Committee within the Parliament. Seeing the signs of this deep fly, Inforum again sprung to action on the scene, with the purpose of waking up and activating the parties interested in the development and in developing the information society. The result of its action gave birth to the e-Inclusion movement and the Year of e-Inclusion.

According to the thesis of Inforum digital literacy has to be extended to millions of people. According to its opinion this cannot be implemented in Hungary in the short term, since there is no realistic chance of connecting about 3 million new users to the net. Nevertheless, it is possible to connect one million persons within a couple of years. If one million new users would become a part of the information network – mostly from the age groups of 45-75, a significant change would take place within the Hungarian society as a whole. This number of users would expand the IT market with 177 billion HUF, and the impetus of this expansion would have a positive effect on other industrial sectors as well.

The appearance of this age group (on the net) could change the societal judgement of the older age groups, which is extremely negative in our days: in 2007 out of one hundred advertisements there were old people only in six of them, and on the other side maximum 25 % of the advertisements targeted people above 50. More than one third of the population of Hungary is older than 50 years, and in addition to them there are still millions of people, who live in disadvantageous situations (Roma people, people with disabilities, unemployed people, and sick people). Meanwhile it is quite obvious that it is an elementary interest of the country to employ these people as well, and not to waste their useful capabilities. Today 69 percent of people going on pension would like to continue working, but only 3 percent of them have the chance to do so. It is doubtless that the adaptation capability of the older generations to the fast changes, to technological innovation is weaker than that of the younger people, primarily because there is no one to prepare them for this. The programs that targeted this task (e.g. IT-Mentor) regularly fail because of the enforcement of the "higher level aspects" of the public offices.

Thanks to the Parliamentary initiative of Inforum a surprisingly great attention was focused around the issue of e-Inclusion. As a result of this in the spring an outstandingly high number of programs, events were held in connection with this topic. One of the outstanding events of the beginning of the year was the announcement made by Microsoft Hungary on February 27, 2008, in which it declared that the public benefit organisations may get the software of the company free of charge. One month later, at the March 26 meeting of the Informatics Subcommittee of the Parliament, on which Viviane Reding, the Telecommunication Commissioner of the European Commission also participated, the preparation of a Parliamentary resolution concerning the issue of e-Inclusion was also started. The subsequent events are listed below:

- The Day of the Information Society: The 1st "Home Party" of the Internet using Old People (Inforum). Entry only above „50+Net“, May 17
- Speech of Steve Ballmer (Microsoft) in the Parliament, May 19
- Research report about the results of the WiFi village project (BME ITTK)
- Meeting of the Parliamentary committee in charge of e-inclusion at an outside venue: Internet Ship, May 22 (Budapest – Százhalombatta)

- International digital solidarity conference (Global Telecentre Alliance): May 22-25, 2008
- Grandchild-grandparent informatics competition (Inforum): May 25.

2. The digital world welcomes the elderly

In Hungary bridging the divide between the old people and IT was undertaken by only a few organisations – maybe because the task is enormous. The earliest Hungarian initiative dates back to 1999, when Inforum published the book of Mr. István Váncsa of the title of "Newsworld" //Hírvilág// about the internet with the intention of letting the words of the well-known writer translate the phenomena of the online world in a way that is acceptable for the older age groups. In 2001 as a local initiative in the Budapest Cultural Center (BMK) the „Click On It Grandma/Grandpa” training of the elderly was started. This initiative established a school which is still alive, and which is very popular in Hungary. Today the "Click On It Grandma/Grandpa" training is already available at 15 sites in Hungary. The example of BMK – primarily in the last two years – was followed by more and more people, the internet training groups were organised in most of the cases along the old people's clubs of the local governments. The fact, that the 50+ age groups have a real interest and a real demand, is very well demonstrated by the increasing activity of the private enterprises in this area.

The largest scale IT training for the elderly is provided by the internet training series of Magyar Telekom, in the framework of which 14,000 people participated in the free of charge training in Hungary in 2008. In addition to this there are only a few initiatives that wish to contribute to the involvement and training of the socially disadvantaged people. The civil supporting system of the "Netrekész" (Ready for the Net) Program funded by the government with 250 million HUF was implemented only very slowly due to the bureaucratic procedures of state administration, and it demands a lot from the implementing civil organisations not only as regards its execution, but also as a consequence of its ex post financing scheme. The IT companies refuse support requests with the argument that the refunding of their investments is very much prolonged in time, and due to their short term profit maximising objectives they do not see any perspective in addressing the less solvent target groups. The internet service providers are more open to getting the

elderly involved, and the two largest service providers are active in this area. Magyar Telekom offers its own training, while UPC financially supports the "Click On It Grandma/Grandpa" initiative.

It can be also seen that such demand raising action would be needed that is based on concentrated resources, and which is countrywide and local at the same time. The methods of raising the demand could include events presented in the media, direct television campaigns and campaigns that are published in the local media, and the local actions of the civil organisations and of the local governments.

The campaign should be followed by training, however, the 50+ people cannot be taught using the computer and the internet through fast training courses, They need a training of at least 20-30 hours in order to overcome their mistrust and aversion, and due to the longer time that is needed for them to acquire a technology that is completely new to them. This process should be also supported by the information society mentors (IT-Mentors), in order to reinforce the learnt, but yet uncertainly used skills. IT-Mentoring is propagated in Hungary. It even became a vocation that is included in the National Register of Vocational Qualifications (OKJ). However, the number of the mentors is still low, only a few hundred. Their representation is taken care of by the IT-Mentor Alliance /IT-Mentor Egyesület/, but the place of their operation is mostly the telecottages.

In Hungary there is an unproductive and permanent dispute about what conditions would be needed for involving the internet non users, and it is an everlasting accusation – especially on the side of the hardware and online service providers – that there is no appropriate content for the old people. In this area huge progress could be witnessed. The Szeniorok.hu (seniors) website started in 2007 was joined by the websites otvenentul.hu (above 50) and oreganeniked.hu. The largest Hungarian health portal grouped its content into a selection that targets the elderly, and it has published it under the name of 50plusz.hu. And finally 50plusz.net, the informatics oriented training service, the initiative of Inforum also appeared. It started a „Szívességbankot” /Courtesy Bank/ and a „Digitális Emlékkönyvet” /Digital Album/ for the elderly. Therefore there is no lack of content in this regard on the Hungarian internet.

As regards internet subscriptions, only UPC started a discounted internet subscription for this target group, but this can be used only by people living in cities.

In year 2008 the European Commission looking for the best practices suitable for dissemination announced a call for proposals for European institutes and civil organisations. It has acknowledged the

winners with an e-Inclusion Award. Several proposals were submitted from Hungary and two of them became medalists. The e-Magyarország network funded from state resources got an award in the „Inclusive Public Services” category, while Inforum got an award in the Ageing Well category. The European Commission appreciated the idea and implementation of the Grandchild-Grandparent Informatics Competition.

Year 2008 was a cardinal year for Inforum. It succeeded in launching the e-Inclusion movement, and it succeeded in arranging a five political party agreement in the interest of liquidating the digital divide. It organised the Spring of Digital Hungary event series, and it prepared two documentary movies, and it started the 50plusz.net website. It participated in the preparation of two Parliamentary Resolutions, and in setting up the Parliamentary e-Inclusion Ad Hoc Committee and in the work of this committee.

Grandparent-Grandchild Informatics Competitions

Inforum has been fighting for years to make the elderly citizens equal participants of the information society. The - by now traditional - Grandparent-Grandchild Informatics Competition has already proven that the cooperation of the two generations may assist the elderly in entering the information society. The competition is aimed at attracting the attention of the elderly to the services that are offered through the Internet, with the aid of which services they may carry on an active life even in their old age. The intention of the organisers is to persuade the decision makers - through the competition - that they should handle the issue of the elderly not only as a social issue, but as an issue of the quality of life as well.

In the competition, grandparent-grandchild teams - with grandparents older than 50 years and 4-14 year old grandchildren - may compare their knowledge with each other through answering different questions, using the Internet as the source of information. Children help their grandparents through the competition to cross the gate of the information society. The competition is a successful event series of the e-Inclusion campaign, and its message is the following. Inter-generation programs can be a way to e-Inclusion in Hungary, since young people have already made acquaintance with the use of the IT at home, at school or elsewhere, and therefore involving the elderly may be well organised within the family and with the assistance of the young generation.

The Grandparent-Grandchild Informatics Competition has been organised 8 times so far at different venues within the country. Today it is not only a family program anymore. It has become a foundation stone of a social movement, since the competitions have mobilised 1,500 families so far. The issue of the quality of life and the use of computers by the elderly have come into the spotlight among others thanks to this competition, since the competitions attracted the attention of the media.

A limited survey of the competition participants revealed some interesting data. The youngest respondent was 4 years old, while the oldest respondent was 84, till 2008. 53 percent of the respondents lived in Budapest, and 47 percent of them lived in the countryside, mainly in towns. The average age of the grandparent respondents was 64 years (between 50 and 84). As regards education those with a tertiary qualification were highly over-represented (62 percent). 35 percent of the respondents had secondary education and 3 percent had only primary education.

In Hungary there are altogether 3,538,000 persons older than 50 years. The vast majority of them does not exploit the advantages that are offered by the Internet, despite the fact that it could help them in staying active in the labour market, in avoiding psychosomatic illnesses (those of psychical origins), in reducing their feeling of isolation, in using the cheapest ways of entertainment, in getting information, and in sustaining – and even improving – their quality of life. Only about two-thirds of the respondents – that is, the most active grandparents – have internet access in their homes. It can be seen that in the case of this age group the spreading of the Internet follows a very similar pattern to that of the young generation. This is well demonstrated by the distribution of the level of education.

On the average, the surveyed grandparents spent 100 minutes a day browsing the Internet. The variance was rather high: there were respondents who spent only 15 minutes a day, while others spent as much as 6 hours on the Internet. They were most frequently interested in the subjects of culture, politics and science. Their search for public information followed the following pattern. The ratio of regular online news readers was 62 percent. The answers of the participants of the competition show that 43 percent of the respondents use the Internet for online banking and shopping. As regards financial affairs, only 23 percent of them did not trust the Internet at all.

3. The program of „Digital Equal Opportunity“

The initiatives in the area of e-Inclusion of an other important civil organisation, of the John von Neumann Computer Society (NJSZT) are also significant. The Society announced in the beginning of 2007 its "Digital Equal Opportunity" program. This program operates, hosts, and supports initiatives that urge societal co-operation, political responsibility undertaking, and its purpose is to establish equal opportunity. The organisation lined up behind the targets of the *e-Inclusion* year that was announced by the European Commission, and joined the five political party and civil co-operation that was established in January 2008.

According to NJSZT within about three years it would be possible to reinforce the three basic pillars of the information society. These pillars are the following: building out the appropriate infrastructure, transferring the skills required for using the internet and the office functions to millions of people, and – probably today this is the greatest challenge – to raise the demands.

The following is a brief summary of the results that have been achieved by the organisation so far:

- *The number of those people exceeded 300 thousand, who took an exam in Hungary according to the European Computer Driving Licence (ECDL) exam system.*
- When planning the training programs it has to be always taken into consideration who needs in respect of what topic what level (digital literacy) skills. It can be said that *ECDL* is „halfway“ on its way, since at least about 6-8 percent of the population should have skills certified with the unified European certificate – based on the experiences of more than 140 countries. Far more people will have to be able to navigate on the internet in order to Hungary become a country of digitally literate people. For this reason it is a realistic and therefore an achievable purpose that by 2010 the ratio of digital illiteracy should be reduced from the present 55 % to below 33 %.
- *ECDL is incorporated in the framework of the public education subject "Informatics". This may significantly contribute – at a slow but steady rate - to bridging the digital divide.*
- *The harmonisation between the vocational and exam requirements of the vocations of the National Register of Vocational Qualifications (OKJ) and the basic IT skills that are required for the specific vocations was done. As a consequence of this there is traversibility*

between the ECDL (or its specific modules) and the IT modules of vocational trainings.

- *The „háLÓRA magyar!" /Hungarians get on the Net/ program is ready for nation wide deployment.* This program through exploiting the capacities of the community points and of the IT-Mentor network may ensure in a controlled and ex post financed way the mass level dissemination of internet usage.
- NJSZT signed an agreement with Microsoft concerning co-operation in the *„21st century skills required for being employed (Digital Literacy)"* program, the purpose of which is to introduce the basis of digital literacy within 3 years to at least one million people.
- *The „Nemcsak a 20 éveseké a világháló" /"The world wide web is not only for the 20 years old people"/ program was launched.* In the framework of this program NJSZT carries on the internet training of the elderly, with free of charge participation options.
- The one day training program *"E-government services, e-administration"* - accredited by the Adult Education Accrediting Body - operates nationwide in about one hundred institutions through a *franchise* system. The training program provides both for the citizens and for the state administration officers the basic knowledge that is required for administration through the internet. A printed and a regularly updated multi-media training material is also included in the program.

According to NJSZT the e-Inclusion initiatives can be considered to be successful if in a declared manner, from governmental resources – according to preliminary calculations – at least 12-14 billion HUF can be allocated to it for supporting different programs in a standard, ex post funded manner. This amount in view of the resources that may be allocated from domestic and international resources, and the significance of the target to be achieved is very low, therefore, it is possible to find and allocate this amount for implementing a successful national program.

4. A WiFi-village program in Roma communities

In the spring of 2008 the Foundation for the Spreading of Internet (Internet Terjesztéséért Alapítvány) delivered to more than 100

disadvantageous settlements used and renewed computers and it built out wireless internet access to these places. In the framework of the civil program implemented with state support in each settlement characteristically 10-20 socially disadvantageous households decided to purchase for 30 thousand HUF a computer for which the Foundation provides free of charge internet connection till the end of 2009. The Wifi-village program with the involvement of the local civil actors, local governments, and minority local governments developed a special instalment payment based funding scheme, as a result of which the families could purchase the computers during six months, with five thousand HUF monthly instalment payments.

The first phase of the Wifi village program took place in the small settlements of one of the poorest regions of Hungary, in the counties of Borsod-Abaúj-Zemplén and Szabolcs-Szatmár-Bereg. The program according to the original concept would have offered a computer purchasing opportunity exclusively for Roma families, however, upon the request of the local participants the program was extended to all the young people and their families, who lived in poverty. Therefore the program evolved in line with the local societal and political relations: in certain settlements exclusively Roma families purchased the computers, while in others the mixed model was used with success.

The program targets the poorest societal class, and in spite of this its operation model deviates from the traditional subsidy based supporting systems: since the families did not get the devices and services free of charge, but they purchased the used and renewed computers. With the free solution it could have been possible to address an even wider group, however, for the developers of the program it was important that the families be appropriately motivated towards using the computers, and they should look upon the possibility and the devices acquired as a value. According to the tender invitation of the Foundation initiating the WiFi-village „they wish to facilitate the joining of the world wide web for such talented young people and their families, who see a breakthrough point in the internet, and who are also ready to mobilise their own resources for this end“.

The cost of the renewed computer and the monitor available for purchase was 18 thousand HUF, and they asked an additional 12 thousand HUF from the purchasers for the network devices that made internet access possible. According to the experiences the altogether 30 thousand HUF amount is not too high for the program to reach the families receiving social benefit, people who are characteristically unemployed, and who

raise several children. The instalment payment opportunity further increased the number of those, who became interested in the program.

Previously there was no possibility for wideband internet subscription in some of the villages, and at these settlements the building out of the basic infrastructure had to be also taken care of. The internet connections that are characteristically based on ADSL or a wire based technology equivalent with ADSL had been forwarded to the households that participated in the program with the aid of high performance WiFi transmitting units. In the course of building out the networks they used devices that are available in commerce, and they supplemented these with solutions that were adjusted to the local usage conditions.

The selection, renewal and testing of the computers was done by Hadrianus Kft, a company that deals with the selling of used computers. In the program they defined the minimal hardware requirements that were needed for using the internet, including the multimedia applications. The unified configuration contained a loudspeaker and a microphone also, in addition to the computer and the monitor. On the computers a modified version of the free, open source code Linux operation system is installed, customised especially for this program. For the machines they undertook a half a year guarantee within the framework of the program.

It is a specific feature of this program that it is built on the co-operation of the individual, the market, the state and the civil sector. The idea and the larger part of the implementation of it are tied to a civil organisation. The state supported with 200 million HUF the building out of the infrastructure. The business sector provided a discounted internet access for the program and thanks to this the participants may use the internet free of charge till the end of year 2009. The local civil actors participated in assessing the demands, and in implementing the program. The target group also undertook an important role in funding the program: the families purchased the computers that were offered at about their procurement cost.

The Wifi village program is a special program in that regard as well that it relies on the local actors significantly. The colleagues of the Foundation consulted a lot with the local political and civil actors in the course of developing the program. When they phrased the text of the tender invitation they asked the advice of the registrar of one of the settlements, but even in assessing the local demands, in locating the interested parties, in forwarding the information they relied on the local parties to a large extent. This also required a huge communication and coordination work in the case of 100 settlements, for this reason they

established a multi-tier system for the program that was implemented between December 2007 and the summer of 2008. The involvement of the local participants defined the marketing of the program as well. Mr. András Nyírő, the ideaman of the Wifi village characterised this as "social marketing".

It is an important feature of the program that it does not intervene excessively into the local market processes. The 8 megabit internet connection by settlements is divided between as much as 30 households, and the bandwidth of the individual endpoints is regulated centrally. The internet connection is fast enough for browsing, and it allows smooth internet phoning, internet radio listening, or the viewing of shorter video clips. At the same time this speed is not sufficient for usages that require wider bandwidth, characteristically for downloading movies and music. Moreover, the system operates in a reliable manner, and according to the experiences there is a failure on the average on each 85th day and the failures are consistently repaired within a couple of days. In spite of this, commercial services provide higher availability indices. Another limitation is the fact that – due to technical reasons – they maximised the number of access points in approximately 30 households per village. All this means that they provide basic access to the poorest households, and at the same time they did not make local competition impossible.

5. Telecottages and IT-Mentors against the poverty of children

The implementation of the objectives of the "Let it be better for the children!" national strategy accepted in a Parliamentary resolution is done partially on national and partially on "local" – primarily micro-region - level. The general objective of the strategy is to reduce the poverty and exclusion of the children and their families, through improving the raising, training, and education possibilities of the children, their health care, home conditions, and the services that are provided for the families and the children, and horizontally by reducing the ethnical, territorial inequalities, by improving the situation of children living with disabilities, by strengthening the rights and by making them better informed.

The first implementation trial of the micro-region program is the "A Chance for the Children" program of Szécsény. The most important areas of the complex program are the following: early talent care (Guaranteed

Start – children houses), public education, youth clubs, social services, employment of the parents and the information society (IS).

The targets listed can be obviously supplemented with a "zero" target, the spreading of digital literacy, since in the Szécsény Micro-Region of county Nógrád the situation is not better in this area either than in the other similar territories of Hungary – in the small settlements of the lagging behind regions of the country.

The indices of network coverage, computers possessed and the use of computers and internet were far below the national average in the case of the Micro-Region of Szécsény at the start of the program. In 4 of the 13 settlements of the micro-region there were public community access points already available. The "strategy" of the IT area was built on the telecottage and the public community spaces and primarily on the IT-Mentors.

In the initial phase of implementation practically relied on voluntary work, not lastly because of the limited resources. During this period the transfer of specialised knowledge, the introduction of the basic principles and achieving the acceptance of these principles was started. The interested team that consisted of 20 persons at the start was reduced to its fragment within a couple of months, and by the time when it was finally possible to offer jobs - instead of the originally planned tender based funding (the decision procedure of which was prolonged for two years) - in the framework of the labour market employment program that is supported by the Northern Hungarian Regional Employment Centre, only 3 enthusiastic young IT-Mentors started their "official" work.

The training that was organised by the "A Chance for the Children" program provided the basis on which the IT-Mentors started their work in two settlements. This meant child education programs in the beginning, during which the children could get acquainted with using the computer.

Daily altogether 25-40 persons were present in Szécsény, where simultaneously 10 children can have access to computers. In the afternoons-evenings one may find here not only the local children, since due to the limited resources the program is unable to provide this kind of service at each settlement even today. In Nógrádszakál on the days when it is open the house is visited by 20-25 persons (a house with 5 computers!). From among the 13 micro-region settlements – in addition to the mentioned two settlements – there are relatively regularly open computer and internet access providing community spaces in 6 settlements, and the mentors co-operate closely with the operators of these community spaces.

The training course consisting of ten training occasions, compiled by the mentors themselves with the assistance of NJSZT is not less successful either. At two settlements (Rimóc, Szécsény) they held trainings on the basis of this for the parents, grandparents, and unemployed people, so far on 7 occasions. About 50 people completed these trainings.

In addition to this in the mornings they keep 2-4 person individual trainings in Szécsény. Thus altogether they succeeded in having about 240-250 people acquiring the basic skills. In addition to the transfer of the basis of digital literacy, personal assistance became also regular: in the area of text editing (e.g. curriculum vitae writing), in information and job search, in preparing tax returns. Through their work in Szécsény about 140-150 children and about the same number of adults, and in Nógrádszakál from 30-35 families close to 100 children and about 40 adults got into direct contact with the information society. This means more than 400 persons, which compared to the 20 thousand inhabitants of the micro-region is not so few.

The mentors got accustomed to Linux (Debian). By now they install the system themselves to the newly procured computers. They continuously extend their service "portfolio": they participate in editing the micro-region homepage, in preparing the PR materials that are made about the programs, in managing the drug problem, in organising exhibitions, in monitoring tender announcements and in writing proposals, in mediating student work. They co-operate with the organizations and the voluntary people (settlement mentors, IT experts) of the micro-region. They try to become the members of the larger "network society", they continuously extend their relationships. The program in this sense achieved significant results in respect of one of the most important objectives: to overcome one of the reasons of poorness, that is, the fact that people living in the micro-region have "dropped out from the circulation of the world".

6. A response to the demands of the market: the Titán program

The agreement concerning the TITÁN (Training framework program for increasing the adaptability of the information society) adult training IT framework program – that was called to life by MEFIT (Hungarian EU

Development Board) and Microsoft – was signed by the Hungarian government, the representatives of the Parliamentary political parties, MEFIT and the Hungarian Foundation for Enterprise Promotion. The basic objective of the program that will be started on January 1, 2009 is to eliminate digital illiteracy, to reduce the lack of experts, which lack hinders competitiveness, the business-IT further training of the leaders of the small and medium sized enterprises, the market conform and professional training of IT experts, and to make the trainings that are realised from EU resources more efficient.

Therefore the program is indispensable on one side because there is a lack of experts as regards quality and quantity in our country, that is, there aren't enough adequately trained IT experts. On the other side, since the amounts that are spent on training at the SMEs are not significant, and in many cases even non existent – the SME sector that employs about two-thirds of all the domestic employees spends on training only 3.1 percent of all the labour cost – and as a result of this we are among the last ones in the area of lifelong learning. On the third side it is indispensable, because the already existing education programs do not meet the market demands. These problems altogether represent a serious obstacle in respect of the growth of the IT sector, and through this indirectly in respect of the development of the economy as a whole. In view of the above the framework program targets those three segments of the SME sector that are most disadvantageously affected from training aspect: the IT experts, the business decision makers, and the workplace users.

MEFIT relied on several principles when it initiated the program. One of the principles was that the program should respond to real market demands. The other principles included the following: it should produce fast results, it should provide an opportunity for the efficient and high level training of the IT experts; it should allow the checking of the quality of the trainings implemented, and its tendering, execution and monitoring should be realised with minimal administration on the side of both the government and the participants. In line with this those most important strategic focuses of the TITAN-framework program, which serve the development of ICT skills are the following: increasing the European and international competitiveness of the Hungarian companies; forwarding the expectations of the digital economy, learning its requirement system; accelerating the adaptation of SMEs to technology shifts; adjusting the training culture of employers to the market demands; the depth and up-to-date level of the knowledge of the employees should correspond to their job scopes; the setting up of unified accreditation and certification

pillars; and minimising the tender administration and the own resource related burdens of the training receiving SME sector.

The TITAN framework program consists of three sub-programs. These are the PROTEUS (Professional Tech-Expert Training from EU Sources), the DIG-IT, and the DIG-IT-ALL sub-programs. The purpose of PROTEUS (competitiveness and taking the lead) is to mitigate the expert deficiency of the infocommunication sector in harmony with the market demands, and to improve in a fast and progressive way the competitiveness of the Hungarian ICT intensive economy through IT-Pro experts that are trained at a high level and in a diversified manner. The main target of DIG-IT (strengthening the digital economy and the SME sector) is to increase the global competitiveness of the Hungarian SME sector, through ICT oriented business retraining and updating the e-business knowledge of the decision makers and managers. The purpose of DIG-IT-ALL (labour market oriented e-Inclusion) is to train those employees and potential employees, who are digitally illiterate and who possess IT basic skills, in order to assist them in getting better jobs or workplaces, and to stimulate the e-business enterprises.

Program TITAN was preceded by a serious analysis. This analysis mapped the background of the competitiveness of the Hungarian economy through different indices, paying special attention to the infocommunication economy. As a result of this the program was established - with the involvement of internal workgroups and external experts - and the program manages in an integrated way the different e-education levels existing within the society. A novel central element of the program is the following: everybody should be taught knowledge that corresponds to his/her level of knowledge and as a result of this each participant of the trainings should move at least with one level higher in the knowledge pyramid. Annually ten billion HUF is needed for implementing the program. They plan to fund this amount from the operative program resources of the EU. However these subsidies have not been approved yet. This principle also meets the objectives of the New Hungary Development Plan. The works of creating the program were financed by industrial and economic contributors. From this money they would train 200 thousand persons each year. The TITAN framework program would like to achieve such Hungarian results that will be exemplary among the European national programs during the period of 2008–11. It is an expected result of the program that the competitiveness of the Hungarian economy will be increased by increasing the IT knowledge level of the people working in the SME sector, and new market and societal chances will be generated through this process. This was

phrased during an interview by Mr. László Drajkó, the President of Mefit as follows: „Therefore TITAN is a training framework program for increasing the adaptation capability of the information society – as we understand it – and its calling word is competitiveness.”⁸

7. The Digital Secondary School

The Digital Secondary School program started on its way in September 2004 with the participation of Gymnasium Földes Ferenc, the Miskolc University and the INNOCENTER Innovációs Központ Kht, and with the support of the Ministry of Informatics and Telecommunication and the Ministry of Education. The objective of the program is to assist those people to maturity level education, who due to their disadvantageous situations were left out from traditional secondary school training. The program was established for those people, who have the capability and desire to pass a maturity exam, however, due to their financial situation, transportation difficulties did not have or cannot have the chance to achieve this within the traditional education structure. Consequently the students of the program are coming from the disadvantageous micro-regions, and in the first years of the school the students were Roma students.

The novel character of the initiative is given by the following. The correspondence based distance education is realised in a blended learning type of system in a specific manner that is not really widely used in Hungary yet, through the application of e-learning. Therefore training is modular, and the school year is made up of seven week terms that are closed with knowledge assessment. Module 0 introduces to the students the way computers and the internet can be used, making them capable of efficiently learning the required knowledge in this special education environment. The education based on blended learning, that is due to its „mixed character” the students maintain contact with the teachers through the internet, but in addition to this in 12 so-called micro-regional Consultation Centres they may not only access the training portal and the training materials, but they may ask the assistance of the local supervisors. In addition to this they participate on consultations and exam hours at these centers on three occasions per module. This way the

⁸ See: http://www.gtm.hu/cikk.php?cikk_id=1102

professional and technical conditions needed for their training are provided for them within their living environment or in its vicinity. The online digital training materials needed for training – which supplement the secondary school training books - were developed by the teachers of Gymnasium Földes Ferenc with the participation of the University of Miskolc and INNOCENTER Innovációs Központ Kht. The purpose of the training materials is to assist efficient knowledge transfer through a wide variety of means, exploiting the opportunities that are offered by multimedia, interactivity, and network communication.

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