Does the Internet contribute to people's life?

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The information society will be fortified, developed by the generation of the future in the first place, the ones who were born into this world and grew up here. This will be natural for them and they will be the real users and usufructuaries. The spread of computers in the households and at homes will become as general as the television or the telephone. The ones who own a computer links up to the worldwide web as well. Teaching computer science has become accepted at schools by today.

If someone cannot have access to the worldwide web, it is a disadvantage in education even today. The questions of the examinations, the right solutions, the results of the examinees, the set books and the information sources, which are necessary to acquire the syllabus, can all be found on the Internet. When taking a language examination, for example, the examinees get a personal password with the help of which they can have a look at their own result on the homepage of the language school.

The students can get information in wider limits with the help of the Internet as specialized literature can be searched with the help of search engines. Going to libraries is not necessary searching for the required documents. This increases the effectiveness of learning a lot. The equipment with computers at schools is essential as the students do not have the chance to have access to a computer at home, it is the school that provides them with that. There is no doubt about the fact that the students get on with finishing their studies better with the use of the Internet.

The necessity of the Internet also appears in settlements and villages where the equipment with computers and the opportunity to access to the web is limited. The worldwide spread programme is to help that which urges to establish tele-houses, tele-centres and tele-huts. Among others, the task of these information centres is to provide the inhabitants of villages with the access to the necessary information. Helping the equal opportunity and their success later on, the opportunity to have access to the worldwide web increases.

Life long learning in the economic competition is essential. A good proportion of the population studies at retraining and further training courses besides doing their daily jobs. The economic development of the society has produced the discontinuation of some recognized jobs so this problem can be solved by the retraining of the unemployed at the given settlement.

Studying in addition to your job reduces free time therefore the information background provided by the Internet is necessary.

I would mention an interesting possibility provided by the tele-education in South Africa where the young African students can listen to lectures of the partner universities through the medium of satellite connections. They can get a degree even at the Harvard University without leaving their own countries and also their cultural and economic surroundings and these degrees are also accepted by the partners cooperating in the network.

Services through the Internet

There are several search engines at the users' disposal to do their purchases on the Internet where the list of stores selling the certain product is put on the screen when the name of the searched product is written into the appropriate place. All the necessary information can be obtained on the homepages of these commercial firms. All the goods can be found in a list, with photos and also the features of the product. The consumer can decide on the way of purchasing the selected product. In the case of an online order the product can be ordered through the Internet and is delivered within one or two days to the given address or the consumer can collect it personally in the specified shop.

Study results certify that 98% of the population capable of earning a living are in the possession of an account. Banks and credit banks offer a certain part of their services online through the Internet. All the financial transactions can be concluded on their homepages.

Internet cafes, Tele-houses, libraries and more recently multimedia terminals sited on public areas (e. g. in shopping centres, in front of municipalities, at railway stations, etc.) can help the ones who do not have computers or Internet accession in their homes or at work. The new service offers an open accession to the worldwide web using a telephone card.

In Hungary the first public WebTerminal in the country was sited in Szeged by the Foundation C3 with the

support of the Matáv. These terminals are suitable for getting information quickly, having a look at any homepage, writing and reading letters.

In the following the appliance developed and installed by the Telecommunication Development Institute of the Post Office Research Institute (PKI) is shown.

The WebTerminal

The terminal is suitable for *browsing the Internet, electronic corresponding, making phone calls* and also *sending short messages* and using *game programmes*. It provides an *on-line advertising interface* which combines the fixed advertisements on the user interface, the advertisements of the Internet sites and the advertising pages running at standstill. The opportunity to advertise and also the amount taken down from the user's phone card mean a considerable source of income for the operator and according to received wisdom, it is necessary by all means to the profitable operation of such terminals.

The services on the terminal (e.g. telephone and browser) can be used at the same time, parallel, in this way the terminal provides the user with a feeling of real multimedia.

Although the terminal is suitable for free of charge distributing of information in the public interest, its most important unique feature is that it is capable of accepting *phone cards,* in this way the customer can pay for the different services with the value taken down from the phone card.

Charges

The tariffs of phone calls are exactly the same as the tariffs of a public phone box. The tariffs of browsing on the Internet work on the basis of time where the appliance charges the tariff by the minute. Sending and receiving electronic letters are charged bit by bit, irrespective of the size of the letter and duration of letter writing. Short messages and played games are also charged bit by bit.

The terminal displays the units taken down in the course of using the services so we can continuously be informed about the amount taken down from the phone card through the medium of a message window.

In the case of the Internet sites of special contents there is a possibility of charging based on the *content* where the amount shown in the head of the site is taken down from the card after the customer confirmed his intention. Databases whose access is restricted may be this type of content where the owner of the database can specify the tariff of the given site.

The way of a more complicated and sophisticated way of charges than now can also be solved. Such as a charge depending on the quantity of the data and the progressive and degressive charges depending on time.

User interface

Developers tended to establish maximal flexibility and convenience of use when creating the user interface of the terminal. The appliance can be used both with a keyboard and a touchscreen. The user can choose the most appropriate way of usage concerning the given activity. The intuitive touchscreen is more suitable for making calls and random Internet browsing and a physical keyboard is more likely to be used than a virtual keyboard when writing a letter or using the Internet. The terminal also contains a built-in webcamera and a microphone. Photos, moving picture and recording are also possible to attach to the written letters with the help of these.

Network connections

The terminal can have three types of network connections which can be combined in four different ways:
– analogue
– ISDN
– ADSL
– ISDN and ADSL combined

The analogue connection represents the past and as it does not provide this type of terminal with the service of a suitable level, it is likely to be dropped by the developers in the future.

The ISDN connection represents the present with the accession the electric circuit connected telephone and the mustered in Internet at the same time. National coverage can be carried out by this connection.

The ADSL connection represents the future. Its large bandwidth guarantees the Internet accession and IP telephone service of, satisfying all the requirements. If necessary the netterminal can access to the worldwide web through wide band ADSL connection. Besides the ADSL accession the ISDN connection is also necessary in future because of the electric circuit telephones and reliability.

Telephone function

The developers decided on the implementation of a clear software ISDN telephone based on a standard PC sound card and an ISDN card. These telephone programmes are given with the ISDN cards by the hardware producers and they can also be loaded from the Internet in the form of a shareware, however, none of them are suitable for using as public phone boxes. The reason for this is that these programmes do not instruct to write cards when calling, do not have telephone number analysis (which is to identify the free/paid/restricted numbers and call directions) and their user interface is also fixed and cannot be form to a similar one of the public appliances in accordance with the requirements of the MATÁV.

Therefore the software developers have made the telephone programme faithfully copying the public appliance with a Proxim card from the very beginning

on the surface of which the usual buttons and functions can be seen:
- volume control,
- selection languages,
- changing cards,
- short time breakdown,
- redialling,
- ABC quick call buttons,
- F1-F5 quick call buttons,
- display of the dialled number,
- display of advertising and information messages.

Apart from these the following functions also work to emphasize the multimedia feature and exploit the ISDN skills:
- loudspeaker,
- conference with three persons,
- display of the number of incoming calls.

*The hungarian web terminal
developed by László Bortel (Matáv-PKI FI)*

The charts of figure analysis, tariffs and advertising messages are provided by the PMS 150 supervisory system.

Connecting of audio signs through the receiver, the internal multimedia speaker and the microphone is carried out with the help of a CNR card .

Browsing function

The browser – depending on setting – can provide a free or a restricted use of the Internet. The whole Internet address or certain groups of sites or the type of content given with the help of extension screening can be restricted. Browsing can also be free of charge or paid. On the surface of the browser the usual buttons can be found (Forth, Back, Refresh, Homepage, Delete, URL line) but there is not a list of menu, in this way activation of the menu buttons endangering safety can be eliminated (e. g. Save, Having a look at the source of a document, etc.)

Operating cards

The terminal accepts phone cards based on Eurochip II now and is prepared to accept cards from abroad that is to accept cards based on Eurochip II of other telecommunication companies – e. g. Deutsche Telekom, SwissCom and PTT Telecom. Above all – due to card operation by the standards PC/SC supported by the windows – other types of cards – e. g. electronic purse, chip bank card or loyalty card – are also easily accepted, it can be solved by the existing card reader installing another safety module into the terminal if necessary.

Special peripherals

– The radar recognizing approach built in the terminal is a special appliance that recognizes moving within the vicinity of a couple of metres of the terminal. The control programme reacts with interrupting the standstill advertising sequence and playing a picture/a sound/an animation, which arouses attention ('Touch the screen.').

– The IrDA infrared data-port makes the changing of data possible by mobile phones, laptops and pocket computers.

– The built in camera is to fix the photo attached to electronic letters, however, it may work as an appliance for video chats and a video telephones later on.

33 appliances of the above mentioned Web Terminals were sited in different parts of the country in December, 2002 and January, 2003.

The appliance has been developed by *László Bortel* (Matáv-PKI; bortel.laszlo@ln.matav.hu) which makes the significant extension of the domestic information services possible. It is likely to advance the use of the Internet on the economically depressed areas.

Equal opportunity, isolation and the Internet

An information centre can be established in community centres and small offices, which can be found at almost all settlements, using the existing telecommunication network and the Weberminal. The bases necessary to start can be established by a contract and with the help of the municipality.

On the basis of the market predictions such agricultural products can be produced that can expect solvent demand. It is also possible to know what tender their economy can be developed and modernized with.

They can join distant education programmes.

Distant jobs are also getting more and more important, which also help the population to remain in their settlements. One of the essential tasks of the tele-houses is to create the conditions to do distant jobs for the inhabitants of the settlement (place, device, etc.)

The inhabitants can not only receive information through the medium of the Internet but can also send. Historical background, geographical features, economical, financial and demographical situation of their own settlements can be shown as well. Attention will be drawn and the interest of investors and tourism will also be aroused.

Isolation will come to an end by the Internet and it makes way for equal opportunity. This results in the qualitative change of the inhabitants' lives living there and contributes to the fact that young people will be likely to remain their native places, people will make plans again and have vision of the future. The Internet 'delivers' the opportunities they did not even dare to dream about to their homes.

The condition of spreading of the Internet

There is a certain part of the society that has never used a computer and they do not know how to work with it, they do not know the services and possibilities provided by the Internet. They think they could manage without it so far, there is no forcing impact that would change their standpoint. Children may remove their parents from this deadlock for whom the use of the Internet will be essential to finish their studies and find a job. The computer may not stand on the first place in the domestic budget of these families but sooner or later this investment will be done.

The families who are very hard up may like to have a computer and use the Internet, however, they cannot finance this investment.

The accession through public (WebTerminal) and community centres (tele-houses) shall be provided.

Teaching the use of the Internet free of charge may also contribute to the growth of the use of the Internet.

Analysis of expenses and benefits

As in the case of all investments, all the families and organizations make an analysis of expenses and benefits concerning the use of the Internet. Although this analysis is not always conscious, the advantages and the disadvantages are both examined.

On the side of the cost

a) The value of the investment in *money*: the price of the devices of information technology and the accession to the Internet, furthermore the costs of the
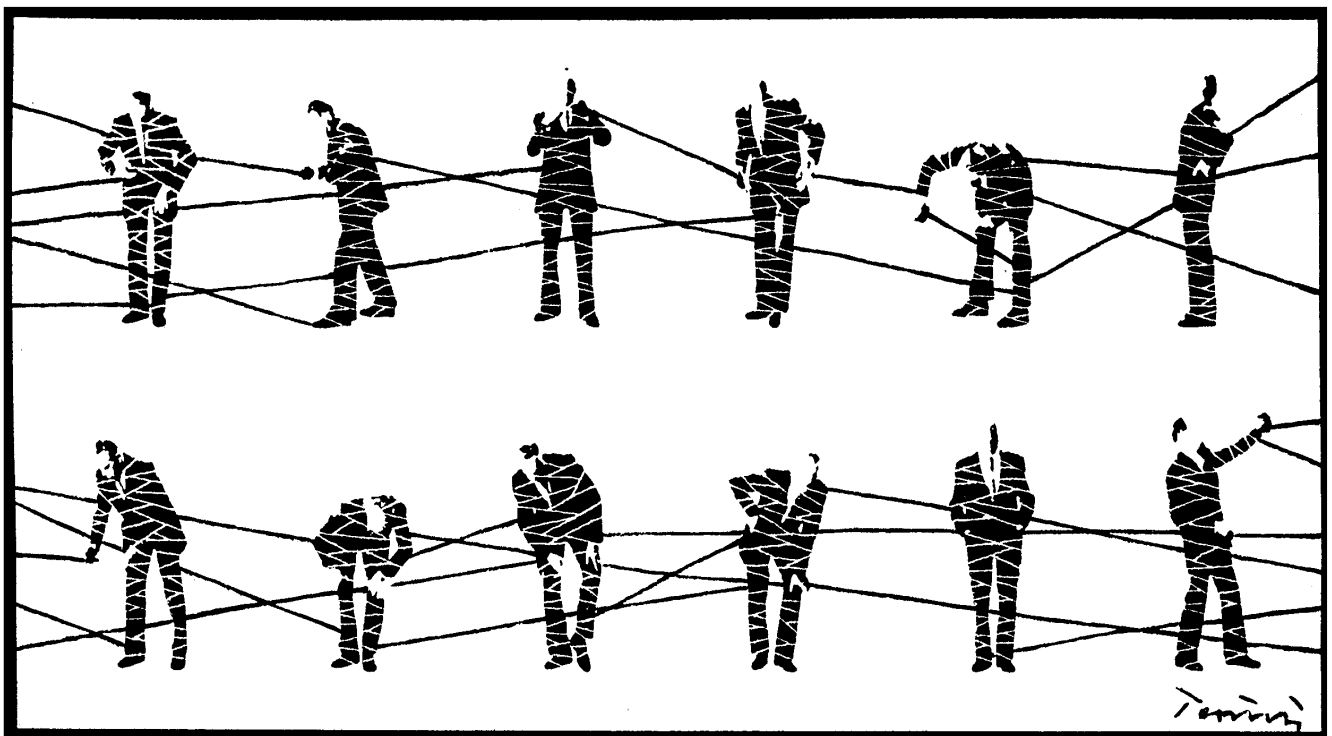
service and its effect on the domestic/organizational budget. What is to reduce or give up.

b) The feeling of *danger* of the user appears in different forms. Such as what happens if a wrong button is pressed? They do not know that a good system asks a question to be confirmed before activation. The systems have an internal safety system.

The language and the system of working up the documents of the search systems do not match. There is no logical connection between the viewpoints of searching and working up. It is proved by the fact that there are too many things found in the case of a search and several of them are irrelevant. That is why it is impossible to read through the immense amount of information, in this way there will be some information that may be important for us, we cannot get them. The situation is similar when using some tightening possibilities.

We often meet with the fact that rules do not protect the innocent, the victim but rather the criminals. Criminals always have human rights, however, these rights are often forgotten in the case of the victims. The appropriate sanctions shall be imposed so that the rules can be enforced. The missing Internet rules, the weak sanctions and the existing loopholes serve the interest of the network criminals only.

Benefit can only be seen

a) When the user is sure that the commercial firm he buys the product from works *honestly* when an online purchase is carried out. A perfect faultless product is delivered to the given address and they do not misuse with the fact that the customer did not see the ordered article.

b) The professional material that can be found on different Internet homepages contain real data, they are *authentic*. Misleading, deceiving the customer shall not happen. Untrustworthy, unreal news may shatter people's trust and then they will read the news on the worldwide web with suspicion.

c) In the case of different Internet bank and financial transactions the customers feel safe.

d) The users are sure that unauthorized persons do not break their secret code.

e) The worldwide web provides *easy access*. One of the main tasks of the tele-houses is to provide the inhabitants with the public and community access and teach them how to use it. The infocommunication background and the access to the worldwide web may be established by the tele-houses. The staff may provide the inquirers with training and help.

Extermination of unnecessary and ineffective information serves the expansion of the effectiveness of the Internet. A sophisticated search language might be a solution so that the unnecessary information does not appear. Sophisticated search tightening of the documents getting into the databases can be perfectly solved with different expressions (e. g. subordination, superiority, etc.), logical – and not accidental – compounds.

If the user orders a cinema, a theatre or a concert ticket, it would be convenient for him to collect the tickets 10 minutes before the performance. It would be necessary to solve the problem of electronic payment in order to ensure the entertaining or cultural institution that the tickets will be paid for sure and taken over. On the other hand, the customer shall be provided with a certain period of time up to the end of which the ticket order can be cancelled and resalable.

The listed difficulties, which put a check on the Internet, can be ceased. The use of the Internet will appear as a natural demand in the course of the change of people's way of thinking and attitude. After that the benefit may be expressed in money besides the expenses.
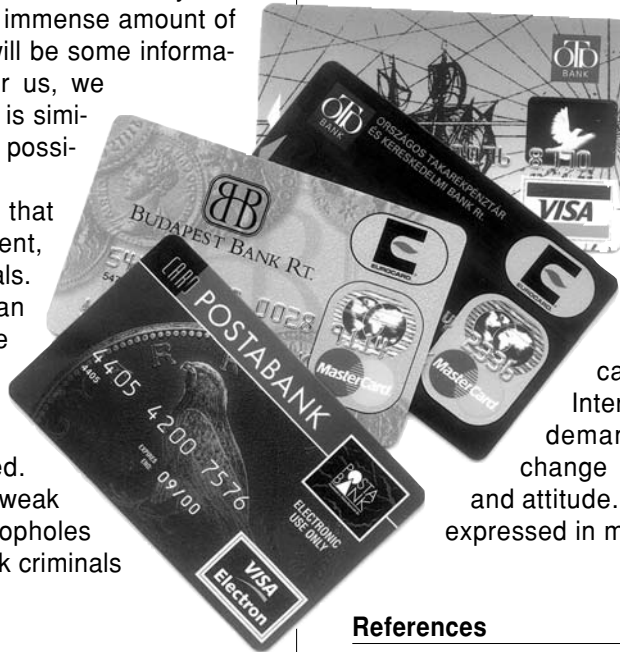
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