

# THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN THE DEVELOPMENT OF LEISURE SERVICES

**Ana-Maria-Viorica MITRACHE**

*The Bucharest Academy of Economic Studies, Bucharest, Romania  
mitrache.ana@gmail.com*

**Mădălina-Gabriela NECEA**

*The Bucharest Academy of Economic Studies, Bucharest, Romania  
nemadalina@yahoo.com*

## **Abstract**

The fast development of the information and communication technology in the last few years and its impact on the society and the economy are reasons for investigating the issues regarding this sensitive field of activity. Starting with a short history of telecommunications around the world, the article reveals the role of cell phones, radio, and TV in leisure activities, disclosing both their benefits and drawbacks. Furthermore, the study explores the computers and internet, as vital elements in contemporary society. In the end of the article a case study regarding the use of information and communication technology in leisure activities is disclosed.

**Keywords:** Information and communication technology, Services, Leisure activities, Computers, Internet.

## **1. INTRODUCTION**

The fast pace of the development of the Information and Communication Technology (ITC) has led to the emergence of a new economy, a digital one, which expands to a global level. The knowledge-based society and, more specifically, the knowledge-based economy, along with their main features and requirements regarding people's competences and skills, have a major influence on management, whether in private or public companies (Zamfir, 2010: 41).

The information technology has developed fast in the last years and it had a great impact on the society and the economy, bringing changes to the models of distribution and production, as well as in employment and everyday life. For example, information technology and internet are transforming public and urban management in the digital era (Plumb and Zamfir, 2009: 165). Moreover, world economies have changed into service economies in the last decade, as services became the main dynamic component of economic competition (Zamfir, 2010: 13-14). Some of the futurologists have predicted a society of telecommunications, of virtual enterprises, as well as teleactivities based on electronic communication and free and fast access to information. The new technologies lead to economic growth

and the emergence of new jobs. Internet companies foresee today over 6 millions direct jobs, without taking into account the considerable effects of indirect employment (Stoica, 2000).

Nowadays, information and communication technologies are recognized as key tools in management processes, having a remarkable potential to contribute to sustained competitive advantage for businesses (Plumb and Zamfir, 2008: 481).

With the advent of the new technologies, a relationship between them and leisure activities has developed. The novelty of using the Internet, tablets and video games has determined a transformation of the activities made by the individual in his free time.

## **2. SHORT HISTORY OF TELECOMMUNICATIONS AROUND THE WORLD AND IN ROMANIA**

Since ancient times people have the need to communicate information over a long distance. Some of the earliest forms of distance communication were smoke signals and sounds generated by musical instruments. For example, in Africa, New Guinea and South Africa drums were used, while in China and North America smoke signals were used (AccuConference, 2007).

In 1972, a French engineer, named Claude Chappe, built the first visual telegraphic system (also called optical telegraph). The first line was built between Lille and Paris, followed by another communication line between Strasbourg and Paris. In 1974, a Swedish engineer, Abraham Edelcrantz, built a similar system, using a different technology, between Stockholm and Drottningholm (International Telecommunication Union, 2006).

In 1837, Samuel Morse, developed the first electric telegraph. Unfortunately, the system didn't function at the time of the demonstration. Later, in 1849, Antonio Meucci, invented the first device capable of transmitting the human voice. It was a failure, because in order to hear the interlocutor, one had to introduce the receiver in his mouth. The first transatlantic telecommunication is made in 1866 (International Telecommunication Union, 2006).

In 1876, the first steps towards the development of modern telecommunications are made. Alexander Bell and Elisha Gray invent, each one on their own, the phone. Even though Elisha Gray was the first to apply for a patent, because of some legal problems, the patent was granted to Alexander Bell (International Telecommunication Union, 2006).

Between 1969 and 1990 the foundation for the Internet is laid. In 1969, the first network of computer emerges, while in 1970 the first steps towards transmitting information through optical fiber are made. In 1978, a network of computers connects Europe and the United States of America. In 1989, while working for CERN, Sir Timp Berns-Lee and Robert Cailliau invent the Web (Gromov, 1995).

Even though we live in Romania, we haven't talked at all about the evolution of telecommunications in this country, which is why the next part of this chapter is reserved to presenting a short history of telecommunications in Romania.

The first telegraph lines first appeared in Romania in 1853; first in Transylvania, followed by the Kingdom of Romania and Moldavia. With their installation, telegraph lines between Cluj – Budapesta - Wien and Brasov – Sibiu – Timisoara emerged. The Romanian that contributed to the development of telegraphy is Dimitre Brătescu (1845 – 1930). He started working as a telgraphist near the cabinet of Mihail Kogălniceanu. By the year 1880, he managed to have a great role in the telegraphic system and its technical state. He introduced new devices and professionalized all the activities. He started a mechanical shop for building new devices (Drăgănescu, 2003).

Telephony first appeared in Romania in 1881, with the introduction of the first telephone line in Transylvania. The first private telephone line was installed two years later, in Bucharest, connecting a shop and typography. Not until long ago, using the telephone booths was the only way one could phone when outside his home, but today we can phone people from our car, train or while on the street, using our cell phones. When a subscriber turns on his cell phone, he is connected to a wireless network that centralizes the phone calls in the area. After that, the call is transmitted to a transit center that routes the call to the wanted person. The area covered by a network station is called a „cell”. This is why the mobile phones are also called cell phone (ANCOM, 2011).

Regarding the radio, this was introduced on the Romanian market in 1901, when the physicist Dragomir Hurmuzescu started the radio communication experiments of Marconi, Popov and others from the period 1895 - 1901. A great role in the development of radiotelegraphy in Romania was played by Emil Giurgea. He made many researches in the domain of wireless telegraphy and contributed to the development of radiotelegraphy in our country (Drăgănescu, 2003).

The predecessor of television is Alexandru Spataru. He is the one that started the researches for developing the first Romanian television: black and white in 1953, followed by colour TV transmissions in 1964. In 1956 the first TV show is transmitted, the transmitter being located in the building of Vitan station (31 December). Nicolae Stanciu helps to the launching of the Romanian Television (situated on

Calea Dorobanți) and also makes the first video with magnetic stripe, having many contributions to the TV image quality (Jurian, 2011).

Bellow, there is a suggestive picture regarding the development of these technologies (Figure 1).

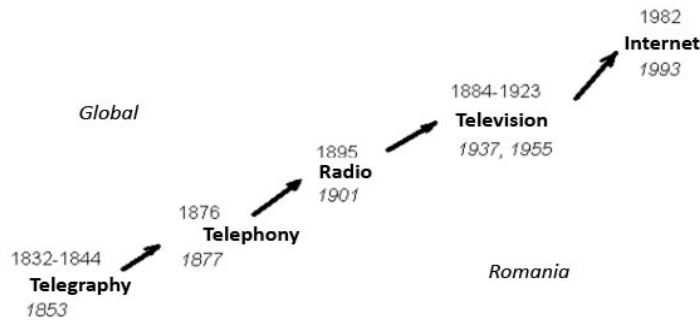


FIGURE 1 – TELECOMMUNICATION EVOLUTION  
Source: Adapted from Drăgănescu, 2003:1.

We can notice that the telegraphy was the first technology to get in the market, followed by the phone 23 years later and then the radio. The television became more important than the radio and the latest revolution of this world is the Internet. One research concluded that from the 5 main means of information (TV, newspapers, books, radio and cinema), the television gained the first place only for satisfying some different needs: spending free time with in the family, information, entertainment (Drăgănescu, 2003).

### 3. THE CELL PHONE AND ITS USE IN LEISURE ACTIVITIES

We are going to talk about an interesting subject – the cell phone – a customary object in people's pockets. Parents buy cell phones for their children, even at a young age, considering that they can control their kids more efficient, but they didn't think or they didn't want to think about the effect of the cell phone to the children. In the case of the young child, that has a tendency to always bring his cell phone to the ear, this represents a landmark for psychomotor development (disease manifested by euphoria).

When the child is old enough to go to school, the cell phone is associated with the need to extend his social circle, as also with the need of their parents to control the child. After the age of 14, the cell phone becomes very important, because the telephonic conversations are the center of the teenager's social life, like psychologist assistant professor Eftihita Crăciun said. At this age, the cell phone is linked to the need of the teenager to assert himself, by emulating the tonalities and the gestured of the adults that he

is surrounded by. As the time passes, the cell phone becomes more and more important in the teenager's life. The cell phone could also have a link to the need of intimacy that the teenagers need when he talks to people of his age. Also, it could also contribute to the teenager's self image, to his personal value that begins to take shape at this age (Floria, 2005).

The penetration rate of mobile telephony is very high lately, having an accelerated growth rate. In many countries in the world, the penetration rate of mobile telephony has exceeded 100%, which means that for each resident of the country there is at least one cell phone. Even though there still are people that don't use cell phones, they are probably part of the category of older people that have problems accommodating with new technologies, or part of the people that can't afford a cell phone. There are also people that use 2-3 cell phones, business people, students etc.

Certainly, the advantages that the cell phones bring are undeniable. The entire population of the world has an acute need for mobility and communication. This necessity is amplified by the technologies that allow us to push the limits. Scientists' opinions are divided between those that believe that cell phones are harmful and those that think they are not.

BBS NEWS conducted that proves the fact that using the cell phones promotes insomnia. The study was conducted on a sample of 71 people, 35 males and 36 females, with ages in the range of 18 to 45 years old. It proved that the people that were exposed to radiations identical with the ones emitted by the cell phones, had sleep disturbances and turned out to be more stressed after the exposure (BBC News, 2008).

If we look closely at the effects caused by the cell phone, we can observe that this represents a physical danger to its user. Nobody knows exactly how dangerous is the cell phone. As the scientist Olle Johansson said: „What we know today could become tomorrow's nightmare”.

The cell phone proves itself very useful to the young man between 14-18 years old in the situations in which he needs to manage a simple problem. If he needs to make an appointment to the dentist or to announce the teacher whether he will arrive or not to a class, the cell phone is indispensable. With a cell phone, the teenager can establish a relationship with an adult, by himself. This way, he has the possibility to cope with some situations, to manage and adopt an appropriate behaviour, without the help of the parent.

This represents a proof of maturity and responsibility. The teenage period is the one in which relationships between boys and girls establish. Once again, the cell phone proves itself useful by offering a channel for a dialog, one specialised on specific situations that have a role in the moral

growth of the teenager, so we can say that the cell phones develops the possibility of spending free time in different ways, established by conversations on the telephone. Not every type of cell phone is liked by the teenagers, which is why the cell phone market is so vast, from „QWERTY” phones to „full-touch”, from iPhone to regular phones that anyone can afford. An attraction in this domain is Apple, which has the goal of meeting young people’s needs, need transformed in a fad. Today, Apple managed to capture the whole market, which is why from minors to business people, there are owners of iPhones.

Along the fact that you can spend your free time in a pleasant way, the telephone can also be a source of conflict. There is a tendency of the individual to keep talking, a tendency that can be more emphasized in the case of the adolescents, because of their age features. Time spent on the phone can affect the time needed for school activities or other constructive activities. On the other hand, an „always on” telephone line represents a serious danger to the budget and, through extension, to the harmony of the family. A very important thing to know is that the communication using the cell phone is characterized the disappearance of non-verbal messages, more exactly the gestures, the body position, face expression and so on, a thing that has the disadvantage of making the young people less sociable, which is why parents have a crucial role in making sure that their children’s life is a balanced one.

Even though the cell phone has a few negative aspects, we cannot deny and take into consideration the fact that using them brings us great advantages in our day to day lives.

Thanks to the constant series of improvements that cell phone manufacturers bring, the Smartphones of today are viable computers capable of processing a huge amount of information.

One of the specialists that have no problem in using the cell phones for treating patients is cardiologist Eric Topol, one of the most important specialists in the United State. He is Chief Academic Officer at Scripps Health. He had an experience that has confirmed him the saviour role that smartphones can have, more specifically during a flight between Washington and San Diego. While Topol was on board, the pilot that made the following announcement to the passengers: „Is there a doctor on board?”. One of the passengers accused acute pains in the chest area. To his luck, doctor Topol was on board. More than that, the cardiologist was testing a new medical instrument for the iPhone, named AliveCor. The doctor attached the gadget to the phone and he was able to run an EKG on the spot, observing that the patient’s problems were severe: heart attack. The pilot conducted an emergency landing, with the patient being immediately taken to a hospital and his live saved. The doctor says that this was the moment when he understood that all the people will benefit from cheaper, better medical services through the use of cell phones, no matter where they are.

The cardiologist works in California, an area in which complex phones are wide spread and this thing had an effect in the interaction with his patients. „Lately, I’ve been prescribing more apps to my patients, than I prescribe drugs”, explained Topol to the NBC American television. This doctors wishes for a change in today’s ways of treatment, in which doctors prescribe drugs to patients and then sends them home (Comper, 2013).

The specialist believe that people should use the various apps for cell phones that allow the measurement the most important aspects of health, from glucose levels, to sleep patterns, which will allow them to manage their diseases. The cardiologist thinks that by using the cell phones to monitor our health constantly we will be able to detect different relevant patterns and anticipate the appearance of a disease, making the treatment easier. By observing both the advantages and the disadvantages of the mobile phone, we can say that it is beneficial and at the same time useful in some situations, and without even noticing if can save us from some bad times.

#### 4. THE RADIO AND ITS ROLE IN LEISURE ACTIVITIES

The first radio transmission in the world was realised in the Christmas Eve of 1906 by an American, using a high power generator. The transmission was received by vessels equipped with system for wireless communication. The vacuum tub is later invented by Lee De forest, a device that made the process of receiving voice signals easier. The recording industry, predecessor of the radio, takes shape at the initiative of entrepreneur J. Lippincott, who bought the rights for the phonograph (device used for the recording and mechanical reproduction of sounds) and for the graphophone (sounds were recorded on cylinders). Lippincott puts jukeboxes in the commercial centers, devices that played certain musical pieces when a 5 cents coin was introduced. There was no competition at that time, so the future of the industry seemed to be a successful one.

Guy Lochard said that „the radio addresses a more or less wide audience, but always opened and anonymous”. The receivers gain free access to the broadcasted messages, but no one understood why someone would like to transmit messages to some completely unknown people (Lochard and Boyer, 1998).

Frank Conrad, engineer at Westinghouse had built a transmitter in the laboratories of the company he was working for. He also developed one in his garage, willing to perfect it. Through the deviced he built in his garage, he transmitted a series of musical recordings, spor results, karaoke contests and so on. People reacted well to the emergence of radio; merchants and manufacturers wanted an agent to sell and market their products, the shops wanted advertising, some were certain that the radio would help

the development of the individual. Some created radio stations for fun, others for celebrity, while others for no reason.

All these were possible because in the beginning money didn't represent a problem. In 1925, in order to open a radio station, you needed 3000\$, and the running costs were around 200\$ per year. The high technical standards required quality engineers and talent began to be searched and paid for. There was the need for a plan to bring a lot of cash quick. The solution was found by the telephone company AT&T; accused by J. Dominick in 1920 that it suffers for „unilateral sight”, they started selling sponsored programs. Soon, advertising becomes the main source of financing for radio stations and in time, the attitude of the government becomes more relaxed becoming more permissive, such that ads become more and more present, each time more direct and concise.

At first, radio stations only emitted at night, mainly music, harmless programs, liked by the listeners. Occasionally, solos were transmitted, poems and speeches of public life personalities.

Radio will gain true wide audience in the 30s, through a higher diversification of their programs. Back then were introduced variety shows, drama series, crime series, soap operas, westerns, thrillers, but also contests; starting 1940, Texaco sponsored the morning programs from the New York Metropolitan Opera (the longest sponsored radio program from all times); in a few words, everything that had the potential to attract the audience, from a wide range of domains. But today, in 2013, the radio is no longer a big thing, because of the development of technology; young people no longer consider radio interesting, due to the fact that a tablet or a smartphone make them happy. Radio is usually listened in the car by the whole populations, as it's also used for making dedications to the loved one; radio stations like Radio Zu, Radio 21 emerged, where everyone can listen to music according to their taste.

Both the cell phone and the radio may have or may have not a big place in one's life, that's according to each person's possibility and the importance they give to such technologies. For example, the old people give a higher importance to the radio than the cell phone, while young people take a complete opposite direction.

## **5. SPENDING FREE TIME IN FRONT OF THE TV: DEVELOPMENT OR SUBCULTURE?**

Another service used mostly in the free time is the television, having an important role in our life, just like the Internet and the computer. We will present some of the advantages of the television, as well as its disadvantages, and its role in our life.



According to a study conducted in France, 92% of the population has at least one television, and 50% have 2 or even 3, one of which is in the children's room, outside of any parental control. Children with an age between 4 and 10 years spend on average 102 minutes (1 hour and 41 minutes) in front of the television, while those of age 15 spend 192 minutes (3 hours and 12 minutes). Obviously, this is a very long time.

Even if it's true that the television brings a taste for culture, that it can satisfy a passion like sports or movie buff, we can still reproach the passivity that it introduces. The opinions of the parents regarding the television are mostly negative, while the ones of the teenagers are mostly favourable, and the watched shows acts as a spark for conversations between young people. The interdiction to view one or another program is perceived as being frustrating by the young people.

In Romania, the signs that appear on the screen during a show or movie through which the viewer can identify the recommended minimum age for the show were introduced 10 years ago, but we cannot tell if they have any effect. Violence is currently one of the biggest problems and part of it may be generated by the shows and movies on television. We cannot blame the television exclusively for the upsetting social violence of the present, but some voices say that it may play an aggravating role. Still, the television shows in most cases the reality, and it represents the world in which we live.

The three main aggravating factors of the television are:

- A passivity effect, characterised by indifference and an abnormal insensitivity for the violence.
- An effect of excessive worry of being involved in a violence attack.
- A vicious circle effect, characterised by the tendency to identify with aggressive characters from the television, to act like them and to always seek brutal show, a tendency that is observable in the children that watch programs with violent content – because the kid can't go away from this images of violence.

Most of the children that watched shows with a violent content began to present, in time, an aggressive behaviour, one that is inappropriate for a teenager or a pre-teenager. Still, not all the children have the same reactions after watching a movie, which is where it comes the education received from the parents. The most vulnerable children are the ones with an age of fewer than 10 years, which are not aware of their actions, which learn easy new and intriguing facts, while the least vulnerable are the teenagers, due to the fact that they have developed the notions of good and bad.

We think that all the parents, especially those of the children under the age of 18, should present an increased attention to the shows with aggressive content and try to be more involved in the education of

their children. For example, they could replace the television with a sport in the time that the child used to watch his favourite show, or to sign up the child for a contest that could develop some abilities. In the next few paragraphs, we will present you some of the effects that the television could have on the children.

The television can have a series of negative effects for a child; it can diminish the night sleep of a child. Also, panic attacks and acute anxiety can be developed because of the shocking scenes in the movies like „The Exorcist” or other horror movies. Even more important is the role played by the television in the development of obesity in children and teenagers, that rather to watch a TV show or a movie rather than make one of the activities suggested above. More than that, while watching a TV show or a movie, they have the tendency to grab a snack that contributes to the growth of their weight.

A social study, taken from a bibliographic source we used – „Your Child from 10 years old to 25 years old” – discusses a large number of prejudices, especially the one regarding the young people that don't read anymore. Added to this is the idea supported by statistics, that more and more children reach secondary school without fundamental notions and that books tend to disappear from the life of the teenagers. The number of the ones that read a little or none at all (22%) is almost equal to the number of the ones that read constantly (23%), this configuration remaining unchanged for the last 10 years (Braconnier, 2007).

According to the law 41 from 1994, article 4: „The television must promote the values of cultural creation, scientific, national and universal, of national minorities, as well as democratic values, civic, moral and sport values” (Legea nr. 41/1994).

According to the law of Audiovisual no. 48 from May 21st 1992, the assignment of licenses, the activity of control and monitoring of the audiovisual is accomplished by 23 inspectors and experts that sanction the television that don't respect the law (Legea nr. 48/1992).

NCA (National Council of Audiovisual) can withdraw the license of a television if its program does not respect the requirements of the law. However the television has also an important role, because there are programs for developing general knowledge of the children and adults. The problem is not the present, but the future. Are the shows useful for the people, or not? How and how much will be the life of the people influenced by today's programs?

It is true that the present is important for the education of the children, but what will happen in the future is impossible to predict.

## 6. COMPUTERS AND INTERNET, VITAL ELEMENTS IN CONTEMPORARY SOCIETY

In our days, computers represent an indispensable element of all our activities. They help us launch cosmic rockets, help in the production processes, agriculture, electronic mail and many others. Connecting computers to the Internet helps to eliminate the financial barriers and develops new economical domains.

The first electronic computer appeared in 1937, being invented by John V. Atanasoff. In 1944, Howard Aiken invented the mechanical calculator, also known as "The Harvard Mark I", developed to be used for vessels. Year 1968 marked the occurrence of the first mini-computer called "PDP-8". In 1976, Apple introduced the "Macintosh" computer (Hornby, 2005).

We emphasized Apple because is the company that in the 21st century had an amazing growth. They introduced on the market revolutionary products like iPod, the cost of such a product being up to 300\$ and it can store up to 10.000 songs. It represents the most radical shift in the way music is consumed from the launch of Walkman by Son. Another revolutionary product is the MAC computers. Most of the people recognise the superior design and the better technology of the MAC, but also the powerful phones like iPhone.

Another service widely used in the free time is the Internet (between 1969 and 1990 the foundation for the Internet network are laid). In 1969 the first network of computers appears, and in 1970 the first steps towards transmitting information through optical fiber are made.

The Internet had and will have an important effect on the society and its future. The Internet quickly became a highly covered phenomenon in the press. People are attracted to this phenomenon, more than that they spend a lot of time using it, while changing the way of work and affecting human interaction.

A study conducted in Great Britain shows that a large part of the adults hand write on average, once in 6 weeks, being dependent on the keyboards to communicate in writing. DocMail, a company specialised in distributing paper correspondence, included 2.000 participants to make a study in order to observe the people that write on paper. This study proved that on average, the participants haven't write on paper for 41 days. The subjects responded that the last time they've written something on paper, was when they had to sign something or when they wrote very short notes.

A third responded that they haven't written by hand for over half a year and more than half admitted that their handwriting has been damaged considerably, many admitting that even they have a hard time

recognising their own handwriting. Over 30% declared that in order to write correctly the word they type, they rely on the predictive text, and over 20% say they always use abbreviations (Hainarosie, 2012).

Globally, access to the Internet is not yet very developed, numerous studies showing that there are states, where, because of the poverty, the access to a computer and to the Internet has not yet represented an "option".

Everyday we benefit from the features offered by Internet access, be it for education, or to interact, or even for creativity, but like every other great invention, this maintains its utility and features based on the goal of its use and the time spend on the virtual activity (e.g.: Facebook, Skype, Messenger).

The excessive use of the new informational and communication technology can generate changes on a personal and cultural plane, especially at an age when because of the lack of strict adult supervision, the temptation of the virtual spaces, be it aggressive games or gambling, or inappropriate images, can distract the attention of the children and the young people from the educational opportunities, from socializing and even relaxation.

Between 1998 and 2000, a study was conducted, with 72 young people with the age between 19 and 25 years, born between 1975 and 1980 (they grew up with the World Wide Web, available on a wide scale starting with 1993). The young people had to write an essay that should've covered their experiences as a generation that had direct access to the technology and the Internet.

The conclusion to this study was that the young people, yet unaware of the risks of these technologies and their advantages, they haven't reduced the level of use of the technology and the Internet. In the context of the same research, a part of the 72 participants said that "The internet allowed them to create a new identity that was accepted in the virtual spaces, the new ego being different from the real one".

Studies conducted on a sample of users and non-users of the Internet revealed the following: the highest the number of the years since the first use of the Internet, the highest the number of hours dedicated to using, the Internet becoming more and more indispensable. The participants of a survey accepted to stay without Internet for two weeks. After only two days some of them "felt weird" and after five days quit the survey. A very small number of people resisted, but declared that they wouldn't want to repeat the experience again. Approximately one quarter of the ones that use the Internet frequently (more than 5 hours a week) feel that they spend less time with the family and friends. A percentage of 60% of these say the Internet reduced the number of hours spent in front of the television and one third declare that they spend less time reading newspapers.

Due to the Internet, there's almost nothing that can't be achieved from the comfort of a chair at home, from visiting all kind of shops to paying the bills, doing research work and documentation for papers and even connection with friends that are thousands of kilometres away. The communication, which before meant writing a letter, is now reduced to a few clicks with the mouse, so the people have the possibility to communicate through e-mail much faster and efficiently than the traditional correspondence.

The Internet has a series of negative effects that can affect us. Studies show a tendency of people to become more stressed, more depressed and alone, with each hours spent in front of a chat window. It is obvious, that even though the chat rooms on the internet offer the same interactivity as the face to face conversations, there is a lack of personal contact required to develop communication skills. This will also negatively affect the way teenagers communicate with the family, friends and the other members of the society.

By using the Internet excessively the personal culture can be lost. The Internet brings an invasion of chaotic culture, which can lead to the loss of our own culture and the adoption of a new one. The adoption of a new culture will lead to a disastrous disintegration of the national values. Human reactions regarding everything that means IT technology have remained unclear until today. Some adopt these changes with euphoria, others are afraid of the consequences, but the truth is somewhere in between.

Romania was placed, last year, on the 41 place, of a total of 60 states evaluated by the Economist Intelligence Unit (EIU), regarding the degree of development and use of electronic services, being followed by South Africa and Venezuela. The analysts of EIU gave points to each country, Romania gaining 4.91 points. The first country in the top – Sweden – obtaining a score of 8.42 points (out of 10 maximum points) and the last place was occupied by Nigeria with 2.82 points.

In Romania, there are four million users that spend at least one hour per week on the Internet. Of those, 16% use the Internet frequently, and 23% from time to time. According to a study conducted by Price Waterhouse Coopers, the rate of growth of Internet users in Romania is of a million users per year. Considering all these we can observe that the Internet is everywhere and the big question is: where are we heading? Both the computers and the Internet have significantly changed the way in which citizens can access public services. The informational society is more and more present in all of the activities of the public sector, including through complex applications like e-Government (Frunza, 2010).

The structure of leisure activities must ensure, first of all, the satisfaction of the needs regarding the work force of the individual. Considering this, a beneficial example of spending free time is tourism, which is one of the most complex ways of spending the free time. Regarding the use of the free time,

most of it is destined to resting, relaxing and having fun, but also to self instructing, self teaching and practicing some hobbies.

## 7. CASE STUDY REGARDING THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN LEISURE ACTIVITIES

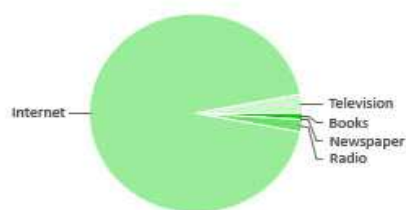
Between 05.04.2013 – 07.04.2013, in the Bucharest Academy of Economic Studies, a study regarding the use of Information and Communication Technology in leisure activities was conducted. 99 people with an age of over 16 years participated to the study, all of them students at the Bucharest Academy of Economic Studies. 68% of the respondents are females, while 32% of them are males.

Most of the respondents are part are aged between 20-22 years (53%), followed by respondents with the age between 18-20 years (31% of the respondents), more than 22 years old (12 % of the respondents), and 16-18 years (4% of the respondents).

Bucharest is the hometown of the most participants, which represents 95% of the total respondents, people outside the city representing only 5% of the sample. Most of the young people in the study (32%), consider that free time is for rest, while 26% of them think that free time should be used for practicing hobbies. The percentage of those that consider that free time is for walking is 21%, almost equal to the percentage of those that think that free should be used for having fun (20%).

The Internet is the main source of information for the students participating in the study, a huge percentage of 94% of these choosing the Internet as the main source of information (Figure 2). Way behind as information source are the television (3%), the radio (2%), and books (1%). The newspaper doesn't seem to have any importance in the life of young people, considering the fact no participant chose the newspaper as the main information source.

What are your main sources of information?



Books	1	1%
Newspaper	0	0%
Radio	2	2%
Internet	93	94%
TV	3	3%

FIGURE 2 – MAIN SOURCES OF INFORMATION  
Source: Authors calculations

As expected, most of the respondents (87%) totally agree with the fact the Internet is a revolutionary discovery (Figure 3). Only 13% of them are neutral regarding this.

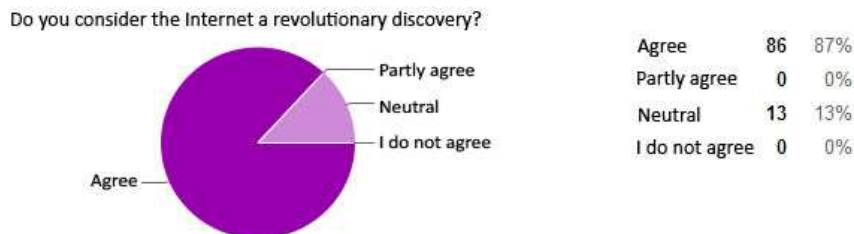


FIGURE 3 –INTERNET – A REVOLUTIONARY DISCOVERY  
Source: Authors calculations

A huge percentage of 97% is represented by the number of participants that use the Internet very frequently (every day). 2% use the Internet frequently (a few times per week) and only 1% of the respondents say that they use the Internet very rarely.

Social networks like Facebook, but also other communication platform occupy a large parte of the free time of the young people participating in this study, most of them spending between 30 minutes and 4 hours with such activities (Figure 4). 48% of the respondents say that they spend 3-4 hours doing virtual activities, 44% spend 30-60 minutes, 6% between 0-30 minutes and only 1% does not use such programs.

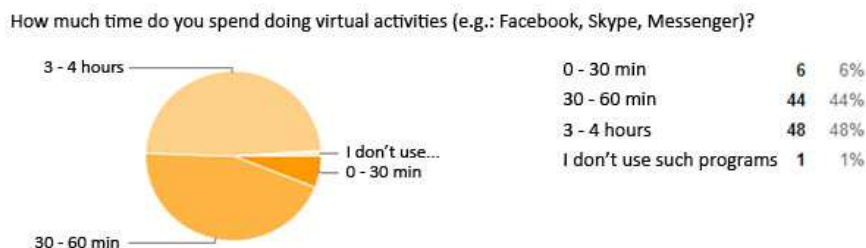


FIGURE 4 –TI ME SPENT USING SOCIAL NETWORKS  
Source: Authors calculations

Most of the participants (43%) think that the Internet has a negative effect on communication and the relationships between people, leading to a drop in the level of networking and communicating. On the other hand, an important percent of 33% of the respondents believe that the Internet can contribute to the raising of the communication level, and 23% think the Internet has no influence, keeping the same level of communication as always.



Most of the respondents agree (49%) or partially agree (41%) that one of negative effects of the Internet is the isolation from the real world, while 9% don't agree with this.

51% of the participants consider themselves partially dependents of the modern technology, 38% completely dependent, and 11% think they could live without modern technology.

The phone is also always present in the life of the most respondents, the percentage of those that use it permanently, not only in their free time, being equal to those that use it pretty often (41% of the respondents) (Figure 5). Only 16% use the phone only when they receive phone calls, while just 1% does not use a phone.

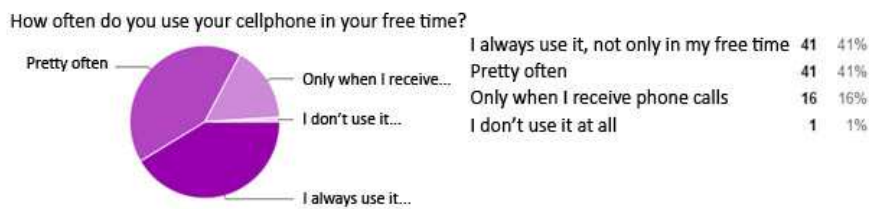


FIGURE 5 – USE OF CELL PHONES  
Source: Authors calculations

Television is used for relaxation by the respondents of the study (53%), but also for information (35%). 11% use the television for documenting, while 1% thinks that the television plays an educative role.

The Internet is also the king when it comes to listening to music, 46% of the participants choosing this mean of listening to their favourite music. The phone is used by 29% of the respondents, while the radio and the iPod are used by 16%, respectively 7% of the participants.

Most of the young people use the television very frequently (36%) and frequently (30%). 19% if the participants only turn the TV on a few times a month, while 14% very rarely (once a month).

As a conclusion, we can say that the Internet is a huge part of young people's life. The Internet took the place of the newspaper and television as the main source of information, while also being used for a wide variety of activities.



#### 4. CONCLUSIONS

Technology evolved with the humankind, and each step of society of evolution marked a technological progress in various domains.

The personality and behaviour of a human being represents an individual construction that can be influenced by Information and Communication Technology. The use at a wide scale of the Information and Communication Technology is vital, and the information represents an essential resource in the development of the individuals. By observing the rapid evolution of technologies, we must increase the attention we give to both the favourable implications and unfavourable that can affect us. We enjoy the existing technologies, but we forget a very important aspect: the influence it has on us.

Largely, the users are aware that mobile telephony, and especially the Internet, are addictive, but we find them indispensable. Other disadvantages are the loss of free time and health issues, especially psychical health. The advantages outnumber the disadvantages: unlimited information, relaxation, speediness, communication.

The Internet and mobile technology are useful things for the population, but dangerous if they are not controlled. All these should make us aware of the way use the features of technologies, making sure we know the so-called friends that can take control over us and be aware of the dangers that we may expose ourselves.

Teenagers can suffer behavioural changes due to the development of information and communication technology, due to the fact that starting with the age of 18 years they start to give more importance to the culture, the way of thinking and the way of acting.

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