Abstract: The article attempts to introduce an ethical approach of communication aspects with respect to the use of Internet and its influence on University Transilvania of Brasov medical students. The profound changes of medical ethics in the informatics society are well known. Although ethics is an ancient concern of humanity it cannot ignore the present times’ developments in technology and science, including computer science, and especially today when e-Health benefits from e-mail, chat rooms, online discussion group, forums, blogs or instant messaging. Obvious the students feel these communication paths’ influence so designing and developing a subject as ethics in communication and e-Health became very important in the education of medical students and in the future education of computer sciences and medical engineering students.

Key Words: ethics, e-health, guideline, communication, Internet

1. Introduction
The humanity evolution is unbreakable connected with communication and sharing information. If living on Earth was for a long time linked with the geographic position and community belonging, once the faster moving possibilities arouse (starting with carriage and finishing with the aircraft) people connection became easier. Humanity chose as a goal to try to be more close to each other and to communicate in the cheapest and easiest ways. Although the Internet facilitates this kind of communication not necessarily involving travelling between different locations on the Earth this new way of connection has as well benefits as handicaps. This is the reason why using electronic communication rises series of ethical issues not only for medical students, but also for students in domains connected with medicine and nursing (medical engineering, medical computer sciences, computer sciences, etc.) The future professionals training in each field should include technical knowledge and ethical and behavioural abilities suitable to a harmonious development according to their role in society. [2]

2. Communication and electronic tools
Through Internet communication human beings had the chance to develop their personality and to evolve based on new information discovered and collected. An optimal individual development and performance involve complying her/his fundamental needs, especially to her/his communication needs. Although the Internet makes communication time between people shorter and raises the accessibility of communication and expression of opinion, it is not able to send in the same time the thrill of direct and unwritten communication. The human being should be able to physically express herself/himself and to psychically receive sent messages and sensitive, emotional and intellectual stimuli. The Internet visibly increases the communication speed and contributes to time and space barriers’ disappearing. Also there is an increasing of information amount and accessibility but unfortunately there is no selection of information. This is why the number of really scientific valuable sites is relative low and most are designed as informative sites about an institution, or governmental or non governmental organisation, or as commercial sites. Easy access to information involves not only a rigorous work of individual research but also the acquisition of abilities and mechanisms of selection made by others. This selection has a positive effect in decreasing the research time and a negative one in the lack of interest that occurred in completing these searches. Also there is an interest’s decrease for information from the important expensive and low accessible books and periodicals or for teachers’ lectures, as a result of a sparse student-teacher direct contact. It has become obvious that Internet is a factor that diminishes direct communication.
and also succeeds the “authentication” of distance teaching system.

Unfortunately today Internet communication doesn’t succeed a straight and complete connection performance lacking in nonverbal features as gestures, face expression posture, clothing, etc. even if it used a webcam. In the absence of visual information we are witnessing a diminished capacity for observing the other speaker reactions and the computer become a neutral intermediary in the communication chain. It is established that Internet accomplishes as well the connection between familiar people (friends, co-workers, partners, etc) as between simply stranger people. This is the reason why people usually communicate with the image of the “other speaker” and not with the real person and why dissimulating capacity is bigger when you don’t face the communication partner.

The biggest lack of communication through Internet is represented by no live presence of people with detectable reactions in fact an object mediated communication. Still it facilitates the access to human experience in scientific field of an increasing number of professionals and non-professionals. This kind of communication offers the illusion of time expanding and the possibility of doing more in a shorter time.

Today the informational privilege decreases more and more even though there are countries where it is impossible for the majority of population to have home Internet or/and to use it daily. [7]

Another aspect concerns the quality of the information put on the web. If the information isn’t well filtered there is a permanent risk to “get drown” in sometimes unchecked, unreliable and even false information. The selection problem occurs even for “whom we are communicating with?” It is difficult to select always the persons we would like to speak with or to be in situation to spend more time in front of computer and less time in direct contact with friends and allocate less time for activities as theatre, concert and meetings with friends.

Long distance communication will redesign educational offer by increasing the accessibility to a quality learning system. [9] In the ideal perspective computer mediated communication should be accompanied with a complementary and strait communication. Internet communication is protected to subjective evaluation of individuals from “the wire’s end” which could be related to physical aspect, hair styling, clothing, etc. Long distance communication could facilitate team work even long distance segregates the team. [16]

Large access in population including young people to different quality programmes requires access restrictions and even a classification system of accessibility to programmes related to their content analyse. [17]

The aim of adequate intervention requires understanding the following issues:

1. Which is the Internet-individual relation?
2. Which is the individual attitude in front of this communication way?
   a. an active involvement and action
   b. a passive taking part
   c. a refuge reaction
   d. a superior valorisation of information sources
   e. an overdo reaction of its importance
3. Which are behavioural changes Internet induced?
   a. egocentrism
   b. dependence
   c. anxiety
   d. depression
   e. narrowed of concerns area
4. In what way social status of individual is affected?
The obligations are respected or the individual try to escape to his responsibilities.

Each individual answers in different way to this issues but this doesn’t mean they are not able to communicate. Ideas identity between communication partners is not required as answer to this matter but according to Pavelcu V, the following conditions: „bilateral trust, communication partners’ flexibility, understanding capacity of point of view, lack of preconceived ideas” must be present. [8]

3. Ethics and electronic tools

A lot of international organisation including World Medical Association considers that medical field workers should be familiar with ethics rules and especially with series of subjects assure human return into the centre of medical concerns in high technological world. [1]

Ethics is in the centre of various concerns as in the following scheme:
Using electronic communication put a number of ethic problems (like privacy, information consent, responsibility) because is difficult to decide if sometimes it is normal to give up the direct communication and if the analysis and web based dissemination of medical data on various aspects of health care and medicine are under the control of quality. [6, 12, 14]

When we discuss about Ethics, Communication and e-Health, we must discuss first about what is implementing “Information for Health”; that means:

- electronic patient records (EPRs)
- development of net communication for medical staff and patients
- development of telemedicine and telecare
- health promotion via Internet
- health alerts for all citizens
- medical e-learning applications.

Health education and the promotion of health competence have not become a prime focus in medical ethics yet, but increasing numbers of millions of people travel to Internet health-sites daily. At the crossroads of emerging knowledge in predictive and preventive medicine and public health and of Internet based technologies e-health has been developed as a powerful medium, not yet regulated, widely visited, full of beneficial information and advises, but also presenting new uncertainties and risk of false or deceptive information. This is certainly also a modification of traditional physician-patient relationships and in part a vulgarization of the medical expert knowledge. [13, 15]

It is very important to be a critical consumer of cyberspace-based communication on the protection and promotion of health and on dealing with diseases and disorders. Trust, but be critical and verify by using more than one source of information and advice. Do not trust those who promise everlasting health, wonder drugs and sensational cures and remedies. [4, 5, 10, 11]

E-health communication never can replace health care provided in your local neighbourhood; use private consultation rooms in cyberspace, but keep alive the personal contact with health care experts and local institutions of your trust in your community. [19]

4. eHealth Code of Ethics

A big forward step was made when in 2000 the first eHealth Codes of Ethics started to appear. The code, conceived by different scientific organizations, include topics like: candor; honesty; quality; informed consent; privacy; professionalism in online healthcare; responsible partnering and accountability.

The main goals were to ensure that patient data confidentiality is respected, and to establish a lot of rules which can help us to use the potential of the Internet not only by the medical staff but by the patient too in managing their own health.

For example: one of the e-ethics topics which must be discuss with the students is the confidentiality and according with this to evaluate the impact of a “free” resources on the health status.

In that context it become more and more important to educate the new generation of specialist according with the new technologies, but also in the respect of ethics rules. The mirage of Internet could be also very important for young generation and without ethical rules is very easy to develop a bad behaviour.

The essence of professionalism is self-governance, and even the internet is a decentralised medium, the governments and professional bodies must be involved in internet communication - especially in its quality and in developing an ethical approach of e-Communication. In Romania was also introduce an ethical code, proposed by Romanian Medical Informatics Society, who try to use in a creative way in e-Ethics the experience already gained.

5. Internet in students’ life and activity- a case study

The study group comprises of 150 students with an average age of 25.55, a minimum of 18 and a maximum of 47 years. The study was realised in February 2008, in Transilvania University of Brasov and followed a study made in 2006.

There are more than 100.000 on-line sites containing health information and a lot of individuals turn to Internet to find health information quickly and efficiently.

Concerning the use of Internet, we observed the next distribution: 35% use the Internet especially for enrich their knowledge and 46% use the Internet more like a communication tool, using e-mail, messenger, webcam, 14% are using it for divertissement and 5% for “other” scopes (downloading, music, movies, games etc.) than finding knowledge or communication (Fig.1).
The amount of time spend in front of the computer is shown in Fig. 2.

![Fig.2.]

We observe that more than a half of the subjects use the Internet daily and weekly and very few are using the Internet rarely. The conclusion is that Internet could be an important way of influencing behaviour and ethic attitude of individuals, especially those who will work in medical system (medical staff or others). They will use their knowledge in electronic tools exploitation.

What is the perspective of Internet? Has it a positive or negative effect on individual life? The students think the Internet effect is positive and this point of view should be used as well in their training as in development of communication and partnership systems no matter their living place or their background and fields of study. (Fig.3.)

![Fig.3.]

In this context evaluation of ethical involvement of e-Health, the awareness of computer sciences importance in health system developing and organising and in medical and non medical staff relations’ improving become very important. [3]

The access to Internet increased in the last years in Romania, and medical students are using this instrument more often.

5. Conclusion

In an ethical way is very important to be a critical consumer of cyberspace-based communication and on the protection and promotion of health and on dealing with diseases and disorders. Trust, but be critical and verify by using more than one source of information and advice. Do not trust those who promise everlasting health, wonder drugs and sensational cures and remedies. E-health communication never can replace health care provided in your local neighbourhood; use private consultation rooms in cyberspace, but keep in personal contact with health care experts and local institutions of your trust in your neighbourhood. [18]

The Internet provides an effective manner of communication and documentation for the students. The students recognize that the Internet has a positive effect on their life, but also the fact that addiction to Internet is possible and 14% encounter problems and restricted their access to Internet.

Using different ways of teaching ethics to university student groups whose previous education is very different and whose knowledge level and background is also different must be the result of cooperation between teacher specialists in different area: engineering, computer science specialist or medical-doctor.

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