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Medicine, Media Communication and Ethical Aspects

Izet Masic

Department of Family Medicine, Medical Faculty of Sarajevo University, Bosnia and Herzegovina

SUMMARY

On World Press Freedom Day (3rd of May 2009) details of the Frida Haus ranking list of press freedom in countries around the world were officially disclosed. Bosnia and Herzegovina is ranked at 98 place, and in the region better ranked is only Montenegro, which is located between 78 and 80 place along with Botswana and Eastern Timor. Top rated is Iceland with 9 points and on the last place is North Korea, with 98 points. Almost every profession has its deontology/ethical principles. However, medicine and the media are specifically targeted by public controversy with regard to the consequences of their responsibilities for the individual and the overall population. Until twenty years ago, the media were the main social system or a reflection of the social system and dominated the field of public communication, which implicitly reflected in the organization, operation and effects of companies, corporations, etc. as the overall social system, increasing the gross national product and its various categories enabled boom. Medicine and health represent to a wide range of people, perhaps, the most interesting source of information, and probably there isn't a person that once was not interested in quality professional and verified information regarding some of their medical condition or overall health status. It is estimated that today there are more than a million Web sites on health and diseases, which means that the availability of health information for users is better today than ever before. However, it is important to patients and users of web sites with health information to learn how to properly use them, and learn to assess whether the information published on this site are of reliable quality, which depends on the authors who put the information on the web site, their topicality, simplicity in use and especially the diversity of the medical content of these web pages. It is the Internet that allows the revolution in relation patient-health care- health services provider. First look is at the symptoms and other health information on the Internet before patients actually go to the doctor. In response to this there is change in the relation patient- doctor, there are attempts to allow the patient to make a test, for example, cholesterol in the blood prior to scheduling the examination by the doctor. The vision of the future is Web-based and secure health record (Medical Record) that can be maintained in some kind of health plan or supervised by a physician. Such a site can be used when the patient is traveling or when he or she goes to the pharmacy or doctor of any specialty. Access to appropriate information may strengthen patients to express their demands and medical professionalism in order to improve clinical decision making. Information on support of patients and their involvement in prevention, alternative treatments and their care should be a central part of quality improvement strategies. Improving the quality of information and helping people use the most of what is

offered have to be realized by implementing the strategies. Governments should invest in public education programs to encourage people to critically evaluate health information. For their share, they will have to be aware of the scope and quality of information sources that can be used by patients, so that they can get advice from them in an appropriate manner.

Keywords: media, medicine, ethical aspects

1. MEDIA AND MEDIA FREEDOM IN BOSNIA AND HERZEGOVINA

On World Press Freedom Day 3rd of May 2009 officially are disclosed details by the Frida Haus of the ranking list of press freedom in countries around the world. B&H is ranked at 98 place, and in the region better ranked is only Montenegro, which is located between 78 and 80 place along with Botswana and Eastern Timor. After are Croatia and Serbia on 81 and 83 place, and Macedonia, which shares with the B&H 98 place. Top rated is Iceland with 9 points and on the last place is North Korea, with 98 points.

2. ETHICS AND COMMUNICATION ASPECTS OF MEDICINE AND MEDIA RELATIONS

Almost every profession has its deontology/ethical principles. However, medicine and the media are specifically targeted by public controversy with regard to the consequences of their responsibilities for the individual and the overall population. Unethical in the medical profession and the journalism, sometimes more and sometimes less cause physical or mental pain with short-term or long-term consequences. The question of ethics comes down to the question of obligation or duty, and these may be natural, such as maintenance of species and similar, then historical, which may be subject to change and the perception of a given point of time when they are implemented, they may be customary and generally are not regulated but may be sanctioned. There is also fourth group of duties which are cultural, and those are the least regulated and least sanctioned (1). Responsibilities in relation to the duties described are realized by human action or activity, or effects of action. On the other hand, communication ethics mostly consider the effects of action while contextual ethics are deeply concerned with

[illegible]

So, the essence of professional ethics (medicine and journalism) is their power and their value criteria. We are aware of today ironic fact that medicine and communications and related in the world of virtual reality and genetic engineering, in which information and communication manipulate the conscience of people using public relations and human physiology with a clean process of cloning, which could be subsume under concept of the dialectic of man and his values of goodness and beauty. Concepts related to morale, a unique feature of the human are essentially true, peace and justice, and these categories, essentially, incarnate only at the level of feelings and not the totality. So what demands we can ask from the media which often turn to Western

the processes of communication between individuals or within the community. Given all the above, then in the appropriate situation power of media may be differently created and used in the creation of reality according to the norms while journalistic and medical deontology are different, and give different effects when they are in mutual interaction (2). When it comes to media, theorists list so called seven deadly sins of journalism: plagiarism, bribery, conflict of interest, concealment of information, fraud, assault on privacy and ideological commitment (3). Another important issue observed from deontology/ethical aspect is whether there is truth, even if it is scientific truth, or if there is no absolute truth (which is always a philosophical question) and who then determines the limits of truth. The media often simplify in their surveys the assessment of the authenticity of sources based on subjective responses of people surveyed in the tendentious questions, "seeking" or tendentious awaiting a same response. Because they say about ethics that it is a philosophical discipline that examines the moral and the source of morality, and basic criteria for evaluating human activity and the general sense of moral goals and aspirations of man. Moral codes which are not written represent value of consciousness in a society and these are the criteria in which the society lives with the moral sense of the limits of good and bad.

civilization in which whole history main characteristics are related to war, slaughter and theft.

When you talk about journalistic ethics (ethics of the media, where the holders of a majority in the media business are journalists) is divided into communicative and contextual, and first conditions second one, because it depends on the context of two factors: the time and space. The question of moral choice which visualizes the public through the media is an essential aspect of context. However, the same media content, depending on the nature of the terms in which and to whom it presents can be of global or local character. Globally, rarely means universal, because it is a space for manipulation and disparities mainly of economic and political nature, because globalization influence institutions and government administrative apparatus imposing laws of the market, mobility, technology, liberalization over state sovereignty. In this key role of the news media in the context the above listed features can be translated into new media without control in the synthesis of entertainment and education, and marketing in the fight for the audience, their voters, customers, supporters, consumers, or the mass of all and everything. The effects of all this vary between two extremes, the consequences also.

Today we are closer to the TV receiver than the neighbors. We dehumanized the

Consequently, the public and privacy are in conflict of interest, especially is often compromised the privacy in the processes of deregulation, and private involvement in the public sphere. However, if something is private, then it also has a private ethics, and to know where the borders and what kind of ethics is in question, or for whom the

new media work, or rather to whom (individual or institution), it is often QUESTIONABLE.

Communications, especially medical communications, as specific scientific discipline in medicine and health, is extremely important. However, it is very common conflict of ethics and freedom against the interests of truth. The success of communication between the producer–consumer, service provider–recipient of services, the physician–patient, a producer–consumer, etc. depending on the information that is placed, and their characteristics are (3):

- Speed;
- Attractive content (often the dominant kits and fiction);
- Giving importance to significance (the media is dominated by sensationalism and tabloids);
- Writing skills and technical features (so-called “make up” and visual lure).

In the context of above stated may be of interest to us the remark the great artist Salvador Dali, surrealist creator, who said “Simplicity is the incarnation of boring.” This would mean that most important and interesting things, to which actors in the media are coming, are in fact coerced or obtained in violation of the rules, that is cheating, which is essentially a reflection of a new phenomenon of “mutual influence of normative regulation and technological achievement,” for instance. Mobility is a crucial need, and the court determines the penalty for failure to comply with decisions about the use of so-called hands free devices during the ride. When and how these two processes interfering, depending on the state and the limits of global and local. Similarly, the prohibition of smoking and a number of other prescribed system or legislative norms of behavior of individuals in the system which is often in conflict with the customary moral norms of behavior. When we add to this growing explosion with introduction and application of highly sophisticated technology and interactive multimedia communication (the world’s global network, the world’s global search engine database), and adopted a free flow of information, then the regulations, which previously relied on the principle of fair play or Kantian model are no longer justified. International normative acts related to the implementation and use of the Internet and other communication systems are becoming more specific and state laws more and more unnecessary. With mass-media destroying the sovereignty of the state, with the emergence of the Internet people perish, and man. What actually we are becoming?

Public journalism, and its ethical principles, has become the subject of philosophical demagoguery, where very often it discusses the genre, system, politics, ethics, and the essence of all what is the goal of quality media, or the method by which they achieve the quality of the media. The question is whether ethics is more important or more important is the method of obtaining information. Theoretically, the key problem is that the method depends on ethics, so good or bad method brings an ethical boundary which is the ultimate ideal of truth. In front of the media sets the following requirements, this must be regulated (3):

- Freedom;
- Quality;
- Responsibility,

And they are also dependent on producers and consumers of media. For instance, if a doctor determines the appropriate diagnostic technology to clarify vague doubts about the disease and the patient does not go to that test, and therefore dies, whether it is the case of medical deontology to blame the doctor or patient. The same question can be set for a number of other examples of criminal and legal responsibilities, such as failure to provide first aid, criminal abortion, euthanasia, use, prescribing the wrong medicine, scientific curiosity, etc., with a mix of medical jurisprudence principles (law), medical ethics and contextual ethics and common moral law, but the essence is the responsibility of the media who may present the case and interpret the appropriate or inappropriate way.

Contextual ethics involves space and time and mutual responsibility. The mass media become the final industry of opinions and the Internet has become brain washing with fireworks of marketing and propaganda content, which in future could lead to two extremes: to establish a government censorship (realist argument of public opinion), and populist censorship (idealist argument of public opinion). The latter is reduced to the so-called checkbook journalism—paying for information. Using today’s digital technology, the actors and the media shape reality as the product is sold to users in the market, or public opinion. Ethics of the profession depends on self-censorship of selector or a REPORTER. The question is: where and how the borders of freedom of the so-called “cutting” in relation to the propaganda.

Algorithm in the public opinion, for everything, could be described by an example from Aristotle’s “Poetics”: the subject is a fictional character who has a problem and motivation, to get it resolved he crosses the way in which the obstacles are encountered, and in line with the path and obstacles to the dismissal comes (3). In other words, public opinion is the opinion of social groups on a solution of degraded social situation, which is a problem that directly influence society and finding solutions to problems through discussion and confrontation of different opinions in which all participants, and preparation of the behavior and actions of the group in relation to the problem and the dominant opinion. This means that public opinion has two main components: sociological (people who have the same logical-cognitive capabilities, and think differently, and not man’s thoughts, but a product of social reality) and psychological (if public opinion is socially conditioned, it is still of psychological origin, because it comes from the affective-cognitive complex personality, and in accordance with the man developed three levels of behavior: individual, group and institutional).

If thoughts are not human, but a reflection of society, a society is explained through the media, who become spokesmen of various PR, in the maelstrom of that reality, produced by the media, to determine the settings of ethics? If reality is lost in the collective consciousness, the reality of what we served, “cutters”—the journalists of any type, character, ability, intention, etc.

3. MEDICINE AND HEALTH CARE AS SOURCE OF INFORMATION

Medicine and health represent to a wide range of people, perhaps, the most interesting source of information, and probably there isn't a person on earth that once was not interested in quality professional and verified information, that individuals are sought in response to a question regarding some of their medical condition or overall health status. However, it is indisputable that design of health messages and education through unofficial sources, and the media are one that must be professionally inspected and determined the accuracy of information content, their choices, their ethical justification, and finally testing or ratings are designed to provide information in a way that suit a variety of media.

Everyday medical practice is essentially a basic task to ensure, or provide the patient right and true (correct) information about the disease, its symptoms, its mode of treatment quality and proper instructions for health care. Today, most doctors resent patients to be providing enough educational information about their health or morbidity.

Possession of quality information (medical or health) is essentially a basis for resolving any problems that individuals and communities face. However, what is interest of patients for all data related to their health, can serve as a barometer of the survey that can be heard via the public broadcast media (radio, TV, internet) and through print media (daily and weekly newspapers/press), or surveys of individual agency that occasionally explore opinions and attitudes of the population related to satisfaction with the provision of services to individual levels of the health system. Also, can serve as a barometer of the issues that patients and experts suggest using these public media about their health condition or illness present.

4. THE ROLE OF ELECTRONIC MEDIA IN THE USE OF HEALTH INFORMATION

It is estimated that today there are more than a million Web sites on health and diseases, which means that the availability of health information for users is better today than ever before. However, it is important to patients and users of web sites with health information to learn how to properly use them, and learn to assess whether the information published on this site are of reliable quality, which depends on the authors who put the information on the web site, their topicality, simplicity in use and especially the diversity of the medical content of these web pages. Numerous studies indicate that is now in greater quantity of global data through these web pages prepares patients before visiting their doctor. According to the information of one Danish study it is found that at least one third of patients before general practitioner seeks information about their health on the Internet, and that women are more frequent visitors of these pages. It is also stated the fact that every day Internet is more and more wanted as communication system among users of health care and their physicians in the health care system, which now use

particular communication standards and regulations, on the basis of which regulate the standards, criteria and rules that should provide good quality of communication between physicians and patients (HON-Health on the Net—an international certificate for quality, reliability and verified information on medical and health web sites). Via the Internet, patients may receive different advice in the form of primary and secondary thinking. On the other hand, doctors themselves are faced with a growing amount of new medical and health science information from numerous biomedical computer hosts that publish summaries or full papers of scientific and professional articles. So, it has dramatically changed the way of learning in medicine, which has become an interactive and multimedia, to the tendency to increasingly use computers in education through distance and virtual classrooms, instead of the traditional ways of learning, as it was before ten or more years. Both have their advantages and disadvantages, which is not subject of this article. The fact is that every day introduced is to the web site different directions, guides for specific diseases and conditions, which facilitate doctors and simplify their daily work.

5. IMPORTANCE OF IMPLEMENTING PREVENTIVE ACTIONS IN THE EDUCATION OF PATIENTS

Mentioned technologies, especially medical diagnostic and therapeutic technologies, based on the computer management are making medicine less humane. Preventive aspects of medicine are increasingly ignored in everyday medical practice. On the other hand, almost every doctor today is burdened with the knowledge that in front of him in the ambulance on the daily basis are different health care needs of patients with the more knowledge about their current or potential health obtained through these media. However, these same doctors are aware of how the incredibly low level of awareness is among patients about preventive measures that include changing diet, life, movement, intake of fat and salt in the diet, etc. In particular it highlights when it comes to mass, non infectious chronic disease that health systems are big financial burden. On the other hand the current situation as an epidemic/pandemic Mexican influenza in the current world we definitely support the just-mentioned statement. A recent television show (on FTV), and comment editor of one of the most watched TV (Hayat) is an example how the official health system and public media conflict in what is a global health problem. Official decision-makers in health policy has no defined position whether the figure of 3 dead and 500 affected is the true figure, and whether the alarm for the proclamation of state of an epidemic or not, while at the same time, their own health care users and potential patients do not have official instructions on how to behave in the circumstances, but these instructions are created by individuals in media outlets, on the basis of the above-mentioned sources (domestic and foreign), some of which are not even professionally and scientifically verified. The media themselves have distance themselves that the instructions are not official, but were forced

to broadcast them to the population, given the current importance of the Mexican flu, which has become global in character and in the absence of instructions from the official health care institutions.

6. HEALTH CARE AND INTERNET

Euro barometer present data that over 300 million Internet users per year consult the Internet web sites to collect health information. So, the Internet, as a global communications network, has enormous public health importance in the world today.

In 1997 the total global industry has been mobilized under the name "e-Health" electronic-health, to animation and engagement of modern information and other technologies for raising the quality of health system and providing health services in these systems. A few years later wane campaign on electronic and health care is transferred to the mobile health, as the wireless connectivity offered huge opportunities for doctors, hospitals and other health professionals and organizations. It is worth noting that the "electronic health", "Mobile Health" and the Internet in general significantly change the quality of access to services addressing the health care system in many countries. These changes were apparent at different levels of implementation in terms of:

- Immediate availability of medical information;
- Changes in roles and relationships between the doctor/patient;
- he availability of patient information, and;
- Connectivity.

Each of these elements already has and will have any significant effects on health systems.

7. THE CURRENT AVAILABILITY OF MEDICAL INFORMATION

Scientific knowledge in the field of Medical Informatics is voluminous database of knowledge, whose capacities are grown in huge, ungovernable volume that one cannot adequately manage (4). As a result of this progress in Medical Informatics, physicians rapidly become specialists in selected areas of medicine. They now exceed the thresholds in areas where they could only rely on their memory for medical decision making. They continually modify information on which they learned decades back in schools. Development of Medical Informatics and explosion of medical information are so rapid and frequent that the medical professional publications cannot go alone to serve as a basis for continuing education. This is the time when the Internet becomes an important and attractive. Information on the Internet can be easily access, and they become accessible to anyone with a telephone line or wireless device for communication. Medical information becomes public if it is allowed free access to, and such is all the more.

Today it is established several hundred thousand of web pages for collecting health information. They serve to health care professionals for diagnosis and determination of treatment, when all other conventional methods

fail. Internet access plays a big role for doctors who want to look for symptoms of illness or diagnosis, treatment, and administrative financial information. Today, almost 10% of doctors are using wireless systems for medical information search, and in special cases to significantly collect information on the influence of drugs in combined use of more drugs.

In Europe, several thousand doctors are registered on the system that searches several thousand web sites automatically, when the diagnosis is entered, or other keyword on the web page. For example, when a doctor enters a word (diagnosis), "asthma" in the database, this provides a couple of articles by leading organizations that are able to provide adequate information and alternative solutions on the basis of which the doctor can bring an adequate and quality decisions by the diagnosis or therapy that apply. Alternatively, entered symptoms can be analyzed by expert systems to offer a proper diagnosis using the medical expert systems (Knowledge Data Base). There are a few of these systems in use.

8. REVIEWED ROLE IN RELATION TO THE DOCTOR/PATIENT

It is the Internet that allows the revolution in relation patient-health care- health services provider. First look is at the symptoms and other health information on the Internet before you actually go to the doctor. In response to this there is change in the relation patient- doctor, there are attempts to allow the patient to make a test, for example, cholesterol in the blood prior to scheduling the examination by the doctor. In some health systems, but this changes the usual method of selecting a doctor, because patients are becoming aware that a doctor who has the most knowledge of a specific disease is not in the vicinity of few kilometers, but probably at the other end of the world. Second, patients search for health information from their homes and their own peace. It is understandable that patients taking only a percentage of what was shown of the material during the search. Furthermore, it is very useful for patients, doctors and health care system in moment when doctors give patients a guide at the end of a search, so that patients can see specific details of medication, and symptoms related to the specific details of diagnosis and therapy, etc. Third, patients may find advice and emotional support through the Internet based support group. Thousands of such groups exist, and patients are considered to be an excellent source.

9. BELIEF IN INFORMATION AVAILABLE ON INTERNET

The basic question is whether it is possible to believe the Internet. Since we know it is impossible to control information on the Internet, it is possible that this can be more detrimental effect on the patient than to be useful. Number of web pages that control the health information is not known for sure. At first glance, this is not only confusing, but has great potential for wrong conduct of patients.

Unquestionable is also thinking that all the information you find on the Internet is accurate. Some experts are calling for authorization of observation information on the Internet. Theoretically, large organizations would be required to verify the content of all websites and accredit those who invested good and reliable health information. However, since the Websites are dynamic, meaning they can be modified and changed at any time, such a verification procedure would be extremely difficult. Another thing is that the website must be accredited at one point and the next moment, it is necessary to publish something which is not required for approval. So the dynamics and operations related to the site cannot be controlled.

It is necessary to recall that the skills that will be most precious in the future, in fact, the search of information. Skills in searching for the right information and its assessment are the challenge of this and future generations. It is believed that about 5% of Internet health information sites listed incorrectly, and it is in comparison with the information that is 10-15% of health information incorrectly stated in professional books, due to obsolescence publications, favorable percentage. Benefit for millions of patients who become partners in health care over the Internet involves a lot better results in treatment and a higher percentage of satisfied patients.

10. THE AVAILABILITY OF PATIENT INFORMATION

One of the main problems in today's health care is that the doctor does not have relevant information about the patient on the basis of which will bring high-quality decision. This occurs in 22% to 38% of cases. Lack of relevant information concerning the patient's medical history is not in most cases resulted in lost or incorrectly placed the medical records, but lies in the fact that patients are seen in various medical entities, so that it disagrees with the patient's explanation. In the U.S. the entire industry, they say the emergency department complaining that there is no bound system of basic data about the patient at a time when the patient seeks emergency services. It can change this in several ways.

11. ELECTRONIC PATIENT DATA SYSTEM BASED ON WEB TECHNOLOGY

The vision of the future is Web-based and secure health record (Medical Record) that can be maintained in some kind of health plan or supervised by a physician. Such a site can be used when the patient is traveling or when he or she goes to the pharmacy or doctor of any specialty. It is expected that the availability of the history of the user is a huge factor in the current efforts to reduce medical errors. New eXtensible Mark-up Language (XML), which is based for the purposes of medical languages will be possible to create an easy way, reduce transcription costs, and make doctors more efficient.

Implementation of personal health records (Electronically Health Record-EHR) in its general sense is to create a medical record in one place where one aspect of health information may be accessible. Patients are

becoming increasingly motivated to take their medical information in their hands. Patients cannot understand why their main concern is the collection of their health information. Although most of the data collected may not be relevant, understandable record of the patient can greatly improve the health service. This is one reason why millions of people gather up their records from suppliers and filled them to the Web personal health system. Over 10 million patients have taken advantage of one of more than 50 commercial personal web sites. American Association for Standardization and Testing Materials (ASTM)-E31.26 has developed standards for privacy and relation issues, such as procedures for the transition to a time when the website is closed or when the website was sold to another company.

Internet opens up a new generation of connectivity that will make many administrative functions much easier. First, the Internet based referencing was implemented in a number of health plans and it will reduce or eliminate the calls and paperwork. Web based claims processing and other administrative functions will make medical practice more efficiently. Organizations-providers will profit a lot using Internet based method of ordering and the replacement of many organizational functions that will reduce costs and make health care more efficient organization. The clinical and administrative zone uses ASP Application Service Provider. Numerous ASP programs are offered to help providers of health insurance for the implementation of software systems on a much more economical way with maintenance and other benefits. For example a software program for medical records which costs \$ 20,000 a few years back now costs \$ 200 a month.

Patients and doctors will increasingly use e-mail prescriptions for medicines and other types of communications. Politically, this will lead to substantial improvements in care that is not based on visits to medical institutions and so a doctor visit will also be reduced. This is one of the difficulties related to the health system in order to increase its efficiency.

Informed users, the powerful new technologies and competitive markets are now currently the largest services-health care. On the main line of attack for users of health care are doctors and medical institutions. Reduced is the system of charging fees for service. Doctors and medical centers are forced to determine the risk to the health of their patients through different ways of pricing mechanisms. Under fee for service, when the doctor spends time with the patient, he or she is reimbursed. What more is to get more paid?

12. PUBLIC ACCESS TO HEALTH INFORMATION

Population in all European countries has a great appetite for health information. They want to understand how disease prevention and how diseases can be regulated and their causes. In the recent British study, patients reported the need to use information for many goals (4):

- Understanding what is bad;

- Getting a realistic idea of prognosis;
- Making consultations;
- Understanding the process and results of possible tests and treatments;
- Assistance in self-protection
- Learning about the affordable services and sources of help;
- Allowing insurance and assistance work in the states of the disease;
- Help others (family and friends) to understand what they are going through;
- Legitimacy of seeking help and care;
- Identification of future information;
- Identification of the best providers of health care.

Access to appropriate information may strengthen patients to express their demands and medical professionalism in order to improve clinical decision making. Information on support of patients and their involvement in prevention, alternative treatments and their care should be a central part of quality improvement strategies.

There is already a wide range of sources of health information that range from simple, from audio and video tape to a sophisticated software-based computer systems and websites. The Internet is beginning to influence clinical practice and this effect seems to be rapidly increasing, such as computer literariness becomes widely usable, and more and more people get access to the WWW. Doctors are getting used to see patients who come into their offices with stacks of paper-printed web sites relating to diseases for which patients come to visit the doctor. Reports indicate that only half of those who have Internet access, as much as 50% used the Internet to search medical information. Numbers that are used to proactively communicate with health care customers by e-mail was also significantly increased. Accelerated expansion of multiple TV channels and digital convergence towards the television, e-mail and other computer-based technologies will greatly enhance the potential interactive communication. Users of health care will be quickly able to make themselves their own diagnosis, obtain information about treatment options and risks, to seek and receive medical advice, as well as to educate management and their conditions, without leaving their own armchair at home. By the time until they reach the clinics, they will be much more informed than today's patients and some will make their own views about what should be done. It would greatly improve public access to health information, but there is a darker side of this explosion of information. Most health information available on the health Web sites are sponsored by commercial companies, whose main interest in selling their products. On-line health care industry is dominated by U.S. pharmaceutical companies.

Many of the Websites that have been sponsored commercially are used in educational purposes only, providing advice and creating awareness about the disease, and avoiding direct advertising. But how much they are reliable? It is much harder to regulate than print media, because it transcends national boundaries. User advertising of prescribed drugs is currently represented in Europe, but

the regulations seem irrelevant, because people come to commercial websites for healthcare organizations. There is nothing that could stop the users to log on to USA websites and to view ads about drugs or commercial information that is presented in a way that is not allowed on U websites. Pressure also is growing on European governments and the European Union from the industrial section and certain consumer groups, to remove restrictions on advertising levels that are impossible to monitor. Is it possible to make a clear demarcation between advertising and information to allow the development of materials that meet the patient's educational needs and ensure that these educational needs are not subject of promotions. Arguments for increased liberalization are finally balanced, but it is clear that commercial companies are less interested in changes in the law. Potential to increase demands for medical interventions and health care services is seen as a possible better way of doing business. Potential increased demand for medical interventions and medical services is seen as a great business opportunity. Benefit on public health depends on the quality of information available. Problem of use of the Internet goes beyond the possibilities of advertising on Web sites. There is a good way to believe that the information that is available from legitimate sources with the educational goal is not always adaptable to the highest standards.

Those who make the laws relating to work on the Internet, or search for information on web sites and the clinicians should take this issue seriously. Access to quality information based on evidence, which has the potential to strengthen the security and knowledge of patients and to channel the use of health information in a better way, will not happen by chance. Improving the quality of information and help people to be take benefits must to be realized in this way. Governments should invest in public education programs to encourage people to critically evaluate health information. For their share, they will have to be aware of the scope and quality of information sources that can be used by patients, so that they can get advice from them in an appropriate manner.

REFERENCES

1. Demirović E. JAVNOST – pretpostavke konstituiranja ovog fenomena u BiH. Avicena. Sarajevo, 2005: 8-35.
2. Masic I, Ridjanovic Z. Health ethics and data protection. Avicena, 2001: 7-50.
3. Panjeta L. Eseji o deontologiji, medijima i oblikovanju mišljenja javnosti. Neobjavljeni radovi. Sarajevo, 2002.
4. Mašić I, Ridjanović Z. Medicinska informatika. Avicena, Sarajevo, 2001: 5-45.

Corresponding author: Prof Izet Masic, MD, PhD. Department of Family medicine.
Medical faculty of University of Sarajevo. Sarajevo, Cekalusa 90/4- E-mail: imasic@
lol.bao