THE PATIENT-DOCTOR RELATIONSHIP
IN THE ERA OF THE INTERNET AND E-HEALTH

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A. Introduction: The performance begins!
1. Variations in role distribution

Often enough we discuss the role of the patient and the doctor in the sector of health care. The use of the word "role" allows us to use a metaphor to describe the stages of the evolution of the patient-doctor relationship over the centuries. Let's imagine that the doctor and the patient participate in a play with the title "The treatment of a disease". Over the centuries this film has got different versions [Truog, 2012]. The

central axes of the play however, remain stable: there are the four generally admitted moral principles that govern ethical acting in the field of medicine and health care: respect for autonomy, non-maleficence, beneficence and justice. The comprehension of each of these principles permits a plethora of philosophical analyses. Only sententiously can we say that the first refers to the obligation to respect the (ethical) right of everyone to determine his preferences, his values and to act according to them. The second principle entails the obligation of refraining from harming others, whereas the third describes the positive obligation of contributing to their benefit. Finally, the principle of justice concerns mostly the macroscopic regard of health care services and tries to define the fairer distribution of the resources in this field. [Beauchamp, Childress, 2009]. In respect to the hierarchical relation between these principles, there is no unanimous position among philosophers. Although autonomy appears to obtain a priority, the acceptance of the four principles is philosophically founded and in case of a collision, the ethically right decision is defined ad hoc.

In the real world, every patient-doctor relationship is found in a specific socio-economic environment, in which the ethically "right" is adapted or degraded. The different versions of role distribution between doctor and patient depict the main forms of pragmatic mixture of these principles, influenced by the difference in time and space, so that the "author", who distributes the roles and defines the protagonist, seems to be the socio-economic environment and the historical context.

In the first historical version the doctor is the sole and principal protagonist who battles and copes with the disease. The doctor is presented as a hero or as a God whereas the patient is just the supernumerary, the intermediary that gives the doctor the opportunity to fight against "evil", namely the illness. The paternalistic model of the doctor's authority was developed when the number of doctors was limited, the alternative treatments restricted, the majority of patients not well-educated and the access to healthcare services difficult. The common aim of both parties is the treatment. The mission of the patient is limited to the visit to the doctor's office who then undertakes everything as there is no room for shared decision making. The patient decides on the visit and the doctor decides on the treatment. In this context, the principles of beneficence and non maleficence dominate whereas the principle of autonomy is exhausted in the seeking of medical help. There is no reason to mention the principle of justice, which refers to the macroscopic vision of the fair distribution of resources, since the treatment is a personal issue not related to the obligations of the state.

As the role of the supernumerary is not so complimentary and as the principle of autonomy is dominated in the western democracies, the patient follows the paradigm of the active consumer and demands a more active role in the play. The increase of the number of doctors, the existence of different possible treatments for the same illness and the improvement of the education of the population facilitated the actual transmission of the principle of autonomy in the field of medicine. The existence of alternative treatments entails a choice. The choice presupposes criteria that cannot be only scientific. When there are more alternatives that lead to the same result, the choice of the way is a matter of appreciation and of hierarchy of personal values and preferences [Truog, 2012]. The outcome of patient's demand is the consolidation of the idea of informed-consent, as "a new entry" in the scenario, which tried to take account of situation's complexity: The patient does not dispose medical knowledge but disposes a concrete and individualized system of values, which rules his lifespan. In respect to the four principles, this model remains devoted to the principle of autonomy of the patient, but simultaneously appears to weaken the principles of

beneficence and non maleficence, since the doctor is obliged to obey the patient's refusal of treatment.

Although the informed consent model serves the autonomy principle better than the paternalistic one, the protection that it offers has a deficit: a big disadvantage of the informed consent concept is its fragmentary character. The participation of the patient is limited to his consent about a specific intervention, ergo obtains an active role only for one moment, whereas in the rest of the duration of the patient-doctor relationship remains passive. This is reflected in every law text that fortifies this model, just like in article 5 of the European Convention on Human Rights and Biomedicine "*An intervention in the health field may only be carried out after the person concerned has given free and informed consent to it. This person shall beforehand be given appropriate information as to the purpose and nature of the intervention as well as on its consequences and risks. The person concerned may freely withdraw consent at any time*". That is to say, that in the informed consent model, the patient is not an autonomous decision-maker but only an autonomous "decision- acquiescent". The role of the patient in the entire play remains secondary.

Additionally, this deficiency relative to the protection of autonomy of the informed consent model has a pragmatic explanation. The informed consent is based on the flow of information from the doctor to the patient. The patient still depends on the doctor because he does not have the specific knowledge and the expertise to take on a more active role. Therefore, he can act virtually autonomously when he acquires the adequate information, namely after being informed by the doctor. And even then his autonomous action is limited to his consent or refusal in a concrete intervention. A previous uninformed action of the patient would, in reality, offend the ethical principle of autonomy because he would act without having the "capacities of self governance, such as understanding, reasoning, deliberating, managing, and independently choosing" [Beauchamp, Childress, 2009]. Under these circumstances, despite the empowerment of the patient, the doctor still remains the protagonist and the patient becomes the deuteragonist, obtaining only the second role. This happens because the patient acts, that is, consents, but his consent depends on the information that is obtained with the help of the doctor. The doctor informs, suggests and in reality decides on the adequate treatment alone and the patient comes later and can only say "yes or no". In this context, the reference in a shared decision making is not accurate. Nonetheless, this exact shared decision making remains desirable for the patient. What is the reason that deprives the patient of becoming the co-star of the film? It is the preeminence of knowledge that makes the doctor necessary. Without him the patient has nothing to say. His words depend on the question of the doctor: "Do you agree with this treatment?".

The way to become the only protagonist or at least the co-star in this film passes through the transformation of the scenario which permits the independent acting of the patient and which gives him the opportunity to act without or at least in parallel with the doctor. This obstacle could be overcome only in a new environment where the patient would have the qualification to participate actively from the beginning of the relationship and where the patient would not only be helped by the doctor but would also help him.

The intrusion of "Information and Communication Technology" (ICT) seems to be the last important factor that has influenced not only the social environment, but also everyday life at home. If liberalism with its central notion of autonomy offered the step-up of the patient from the role of the supernumerary to the role of the deuteragonist through the informed consent process, is ICT able to lead the ethical biomedical principles to a new mixture, to emancipate the patient and give him the

opportunity to become the co-star next to the doctor, or even, the only protagonist? In other words is e-health the right way or one of the right ways to achieve this outcome? We are going to answer this question later on. Before that, we should make some notional clarifications that are going to help us understand the particularities of the new scene.

2. E-health: A potential new scene?

The term "health" is used each and every day but in reality nobody can define it. From the maximalistic definition of World Health Organization (WHO), that "*Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity*" to the more minimalistic definitions that academics propose in order to define the content of the social health care services into the states [Kremalis, 1987], what "health" means remains a mystery which is out of the focus of the present.

Recently, a new composite word has appeared: "*e-health*". Since the second composite is difficult to define, we are going to deal with the first one. The use of the adjective "electronic" as the first composite concerns not only the word health but a great number of notions which have been influenced by the emergence and the development of the so-called "Information and Communication Technology" (ICT), whose intrusion changed fixed relationships and created new fields of economic evolution. In this context, it is not peculiar that the term "e-health" does not come from a classroom of a university but was created by the industry which –additionally to e-commerce and e-learning– perceived the sector of health care services as an economic lucrative field to utilize the new technologies and to expand its activity [Eysenbach, 2001]. The ICT, applied in different fields in a certain point in time is on the one hand given, but its application is influenced by the peculiarities of each field, so that it is crucially important to interpret the first composite "electronic" always in combination with the second which describes the sector which becomes the recipient of this technology. So, an attempt to define the term "e-health" as a whole is necessary.

Precisely because e-health is narrowly bound with ICT, its content is not static and changes whenever a new achievement of ICT can be applied in the field of medicine and health services. This dynamic character of the notion of e-health is reflected in the following definition of Eysenbach "*e-health is an emerging field in the intersection of medical informatics, public health and business, referring to health services and information delivered or enhanced through the Internet and related technologies. In a broader sense, the term characterizes not only a technical development, but also a state-of-mind, a way of thinking, an attitude, and a commitment for networked, global thinking, to improve health care locally, regionally, and worldwide by using information and communication technology*"[Eysenbach, 2001]. This definition resembles a mathematical juncture: the content of e-health depends on the content of medical informatics, business, the evolution of the internet and related technologies, namely on elements that change rapidly. So if we want to have a less abstract picture of e-health, we must opt for a more descriptive and casuistic definition. For now, the term "e-health" principally contains the following: internet information platforms, interactive self-help groups and decision aid sites, electronic commerce of medications, electronic medical records, telemedicine, interactive sites for administrative reasons (visit scheduling), email communication with the doctor, home monitoring.

What do these applications mean for the configuration of the relationship between patient and doctor? Can ICT influence the allocation of roles between doctor and patient and lead to a renegotiation of their relationship? And if so, do the miscellaneous applications have the same, different or even opposite influence over the patient-doctor relationship?

B. The multi-application of ICT and e-health: e-health with and without the doctor

As we saw earlier, ICT offers a vast amount of applications in the sector of health care [Harrington, 2012], that can at any time and very easily be developed further, change, weaken or even disappear in order to give their place to new applications. Each of these applications serves different needs and for this reason it may involve different persons, therefore, their common and indistinctive analysis would be problematic. This becomes explicit, regarding the issue of the influence of ICT in the patient-doctor relationship. Some applications of e-health presuppose a "typical" already formed patient-doctor relationship, whereas others sometimes function without, or even more so, independently of this relationship. Nonetheless, even in the case of "independence", ICT manages to exert impact on the usually parallel existing patient-doctor relationship by influencing the mixture of biomedical ethical principles. In order to see the new forms obtained by the patient-doctor relationship in the era of the internet and new technology, we are going to examine the consequences of e-health applications, which presuppose the necessary contribution of the doctor in comparison with the different consequences of e-health applications, which seemingly do not presuppose the necessary contribution of the doctor.

1. E-health with the doctor: new channels of communications.

From the moment that a patient decides to visit a doctor and to create a relationship with him and until the end of this relationship, the traditional communication model of the patient-doctor relationship entails some concrete stages. The patient must call the doctor's office during office-hours so as to schedule an appointment. It is very possible that the doctor's office is far away from the residence of the patient who is obliged to make a long journey so as to visit the doctor, and may therefore be in an inconvenient situation. When he arrives at the doctor's office, he may have to wait for hours, because there are other patients who have arrived before him. During the examination the doctor takes down the history of the patient, asks for antecedent illnesses, for medications that the patient is already taking and proposes a number of tests and examinations so as to be sure of the health condition of the patient. After having done the proposed examinations the patient schedules another appointment with the doctor, makes a new journey, waits for hours and at last gets the diagnosis and receives a prescription on a piece of paper. After a couple of months when the medication is consumed, the patient must follow the same process so as to get a new prescription. The same happens when the patient needs a change in medication in the case of developing side effects.

By this general description, it can be easily understood that the center of the typical way of communication between doctor and patient takes place at the doctor's. The patient is fully dependent on the doctor's time, place, and schedule. Several ICT applications bring new methods that allow the shift of the communication center of

this relationship [Ahern and others, 2011]. These communication systems concern not only the administrative part but also the medical part of the patient-doctor relationship.

a) administrative facilities: email and on-line scheduling

The easiest and simplest new form of communication concerns *e*-mails which are absolutely compatible with *e*-health. The use of e-mails is not going to replace the visit to the doctor's office, that is, the necessity of face-to-face appointments, but it is rather going to increase, facilitate and upgrade the remaining contact between doctor and patient, which does not presuppose physical presence. Contrary to a hurried telephone communication, the use of e-mail offers the possibility to ask a question whenever needed, to expose it analytically, to read the answer of the doctor many times and to go back to it when something is forgotten, or even to attach photos important for the diagnosis, without having to wait for hours [Ball, Lillis, 2001]. This form of communication is particularly useful for patients who suffer from chronic diseases and need a flexible advisor continuously [Dedding, van Doorn, Winkler, Reis, 2011]. Similarly, is the advantage of on-line scheduling of appointments through a web site of doctors which is accessible 24hours per day, remains up-dated and permits the self-acting confirmation of the appointment.

 The patients have noticed the advantages of the provision of both e-services and conclude them among the criteria for choosing a doctor [Andreassen, Bujnowska and others, 2007]. Indeed, the development of such e-services presupposes the willingness of the doctors who, however, particularly regarding e-mail communication, are reluctant to collaborate. As a justification they appeal to the time constraints and the fear that their already pressed schedule is going to be burdened with an overrun inbox. [Forkner-Dunn, 2003]. As a counter argument we could say, that e-mail communication is going to reduce the unnecessary visits to the doctor's office and provide the doctor with a larger time flexibility to answer. Moreover, through e-mail communication or even only through its possibility, the patient-doctor relationship is reinforced and obtains characteristics of interactivity and finally of partnership [Street- Gordon, 2006].

b) Electronic Medical Record (EMR)

Online scheduling and e-mail communication concern principally administrative and secondary medical issues, namely the periphery of the patient-doctor relationship. On the contrary, the electronic medical record (EMR) is connected to the heart of the medical provision and can change not only the micro-level of the patient-doctor relationship but the whole system of health care services radically. Primarily, the EMRs aim at the replacement of the paper based records and the computerization of the history of a patient [Fairweather, Rogerson, 2001]. This method can resolve a great gamut of stiffness of the traditional paper system, which begins from the amusing and common problem of the illegible hand writing of doctors and results in the redundant duplication of examinations, since there isn't a central accessible record concerning a particular patient anywhere [Mourtou, 2006].

The basic form of electronic medical record allows access only to the doctor and the rest of the medical personnel of a heath care institution. When there is net compatibility, there may be a central system that connects different local nets. This

connectivity may concern the computerized records of one hospital, of all national hospitals or of hospitals from different countries.

Despite the plethora of advantages, the EMR presents a considerable and substantial deficiency: the violation of a computerized system is easier than that of a paper-based system. Simultaneously, because of the nature of e-record, which entails the whole history of a patient and which is enriched every time that the patient visits a doctor or a health institution, the harm caused by a violation is much more serious in comparison to a violation of a written archive, which presents only fragmentary data of the clinical situation of a patient and which is locked in an office. [Fairweather, Rogerson, 2001]. The acquisition of such data is extremely useful for insurance and pharmaceutical industries, which with such information can build the profile of a patient. This is, however, a pragmatic problem, that cannot impoverish the great usefulness of EMR. Regarding the ethical dimensions of this issue, it is a fact that the violation of the EMR harms the right to privacy, which is further based on the autonomy of the person. But it is the violation of the EMR and not the EMR itself that harms the patient [Chang, Chang, 2008].

Even more so, within the scope of biomedical ethics, the use of EMR, serves if not the autonomy, at least the principles of beneficence and non-maleficence, since it relieves the patient from unnecessary duplication of tests, and therefore additional interventions on his body. Simultaneously, it provides the doctor with a detailed, global and individualized image of a patient, a priceless trump-card, when trying to make a diagnosis. The importance of this parameter becomes clearer in cases of emergencies when the patient is unconscious and the doctor cannot obtain any information about the medical history. In any case, the saving of time means further, faster treatment, less visits to doctor's and therefore saving of money [Shomaker, Ashburn, 2000]. The last benefit is not meaningless and seen within the macroscopic level of the survival of the health care systems, serves the fourth biomedical principle, namely the distributive justice. The saving of money wasted on redundant testing can be used to allow the access of more people in the health care system.

c) Advanced EMR

The only ethical principle that the traditional EMR does not seem to enhance is the principle of autonomy, since the records are controlled by the health care institutions and the patient usually has no access. Nonetheless, there are health care institutions that not only allow the access of the patient to his personal records, but also give him a more active role by permitting him the input of data, which arise from measurements that the patient makes alone at home (blood pressure etc.) [Lo, Parham, 2010]. This version of EMR presupposes the use of another possibility that ICT offers in the field of medicine: home-monitoring. The patient takes on the responsibility to measure his blood pressure or glucose level and enters the measurements in the EMR. The doctor checks the data that the patient inputs directly, then marks the improvement or deterioration of the health condition of the patient and decides on the continuation, the modification or even the pause of the treatment. This system presupposes the collaboration of doctor and patient, renders the latter as an important agent of the procedure of the treatment and it is very important in the field of chronic diseases, where the incessant observation of the crucial input ensures the maintenance of a concrete health level of the chronic sufferer [Tang, Lee, 2009]. Apart from time-saving, this method upgrades the patient but burdens him with serious responsibilities. The correctness of the diagnosis is immediately connected with the measurements of

the patient, who in the field of decision making contributes not only with his values and preferences but also with the objective medical data that he gathers. Simultaneously, the doctor has an assistant on whom he is dependent. Without the patient's collaboration the doctor cannot practice his knowledge adequately. When previously presenting the informed consent model, we argued that the doctor still remains the protagonist because he is the one who holds the monopoly of knowledge. In a system of home monitoring, the monopoly of knowledge is shared: the doctor disposes the scientific knowledge and the patient the practical-measurable information. The disposition of the first kind of knowledge is absolutely inutile without the second.

Despite all the above described advantages of home monitoring and interactive EMR, we cannot overlook some disadvantages related with the capacities of the patient. The measurement of medical data is not such an easy task, and in any event presupposes a familiarization and sedateness that the patient does not always dispose. Furthermore, the assignment of a vital part of the diagnosis and treatment process may overwhelm him and can influence the life of the patient's family [Dedding, van Doorn, Winkler, Reis, 2011]. The house is slowly converted into a mini-hospital.

d) Telemedicine

The EMR represents a subgroup of the application of telemedicine. The term telemedicine is exactly like the term e-health: difficult to define, since its content is immediately influenced by the evolution of ICT. For this reason a simple definition like "*telemedicine is the use of telecommunications for medical diagnosis and patient care*" limits the width of this application to a great extent. Regarding the actual possibilities of ICT, the following definition of Coeria is satisfactory: "*The essence of telemedicine is the exchange of information at a distance, whether that information is voice, an image, elements of a medical record, or commands to a surgical robot. It seems reasonable to think of telemedicine as the remote communication of information to facilitate clinical care*" [Stanberry, 2000]. Telemedicine connects not only the communication between doctor and patient by allowing the transmission of pictures or videos containing data pivotal for a diagnosis but also between doctors. It even permits the performance of a surgery from afar with the use of robot surgeons, who follow the instructions of real surgeons. It is also used within the medical society as an effective way for training young doctors, since they have the possibility to watch a surgery in real time through video-conferencing.

Through the use of telemedicine, in some medical fields, a physical examination appears to be unnecessary at first. Nonetheless, we cannot overlook the technical dangers that such a replacement bears. Although scientific data affirm that thanks to the high resolution of the used devices, the digital image which is transmitted to the doctor agrees with the real image of the patient, the doctor lacks the privilege of physical touch which is very important for the diagnosis. Furthermore, the eventuality of an alteration of the transmitted image because of a technical error is always an existing factor [Stanberry, 2000].

Apart from the technical problems, the opponents of telemedicine raise questions related with the quality of the doctor-patient relationship. A face to face communication seems to be more qualitative in comparison with telecommunication. According to research, in the case of telecommunication the time spent for consultation is significantly shorter and the patient centered behavior patterns, such as discussions related with the emotional situation and the psychological support of the

patient significantly fewer [Liou, Sawada, 2007]. Another disadvantage mentioned by the opponents of telemedicine relates to the confidentiality and the inability of the patient to have control over who watches his "video-examination". The lack of these elements in communication can hinder the development of trust which is supposed to be an important element of the patient-doctor relationship.

However, these disadvantages cannot weaken the great advantages that telemedicine offers as it can connect a doctor and patient who are separated by time and space enabling the observation of a patient from a distance. Secondly, this means that the time of stay in hospital can be reduced, since the observation of the recuperation of a patient, can be operated from a distance [Felt, Gugglberger, Mager, 2009]. This means cost reduction and available beds for the treatment of patients for whom the applications of telemedicine are not effective and need a physical examination and treatment from close up. Regarding the fact that the chronically ill are the most costly group of patients in the health care system, the use of telemedicine can be life-saving for the survival of health care systems [Dworkin, 2002].

Telemedicine functions not only as a supplement and as a successor of traditional medicine but can also completely replace it, since it can be the first and the last door for a person to enter the health care system. This concerns cases of patients who live in remote areas where no hospital and no medical personnel exist and the transfer of the patient from the periphery to the center cannot take place. By allowing the access of more persons in the health care system, telemedicine contributes in the fairer and wider distribution of health care, ergo in the promotion of the biomedical principle of distributive justice [Felt, Gugglberger, Mager, 2009].

The importance of telemedicine as a medium to allow the provision of health care services in remote areas is more important in the low income countries [Ruxwana, Herselman, Pottas, Ouma, 2010]. While in the western countries the cases of people in remote areas who are objectively excluded from the health care services are not so common, in the developing countries it is routine. The limited number of doctors and other experts is concentrated in the big cities of such countries where there is also limited and rudimentary infrastructure. In the periphery where the majority of the (principally low income) population lives, there is no possibility of provision of health care services. The unsatisfactory hygiene conditions and the poverty under which the population lives intensify the apparition of illnesses whose treatment presupposes medical support.

The use of technological mediums allowing video-conferencing is not enough to ensure the treatment of a patient. Apart from these mediums, a distribution of knowledge and expertise is needed. The dazzling speed of technological development and of evolution of medicine presupposes the continual information and education of doctors. Such possibility is not offered in the limited and technologically secluded environment of the third world. Doctors need the help of the librarians of the western world who can provide them with access to digital information resources to say the least [Chanda, Shawt, 2010]. Such collaboration can contribute to the qualitative improvement of health care delivery and to the promotion of the principle of distributive justice in a global perspective.

e) Intermediate conclusion: ICT in an already existing patient-doctor relationship

To sum up, in the case of an already existing patient-doctor relationship, ICT can facilitate the communication of the participants, since it means, among others, saving

of time so much for the patient as for the doctor. Another factor of great importance is also the implementation of electronic health recording which in its more advanced version permits the active participation of the patient through the entry of the results of "home-made" measurements. The patient as the provider of medical data has a responsibility. The diagnosis of the doctor is based on the information that the patient gives. The patient is not merely a supernumerary. He is an actor who speaks. The question is whether the patient has the proper education to become a really good actor.

Even in the case of a simple and not an interactive record, in which only the medical personnel has access, the patient has indirect advantages. When there is a net that contains EMR and many different national and international organizations have access to it, they have a global idea of patient's history. A detailed history is a great presupposition of a good diagnosis and contributes to the saving of time and money for duplicated tests. All these are some implications of telemedicine that enforce the doctor-patient relationship. The core-idea of telemedicine and the greater revolution that it has brought is connected with the possibility of creating a patient-doctor relationship from the beginning, namely a form of relationship which permits even surgical treatment with the use of video-conferencing, without the doctor even touching the patient. This sort of communication may have some disadvantages on the part of the emotional approach of doctor and patient. But for the patient living in remote areas, who without telemedicine would be excluded from any sort of medical treatment, this is not a great problem. Besides, according to research, successful telecommunication depends on the development of some abilities and skills from the part of doctors which can be taught.

By all these ICT implementations the patient remains in "the play of treatment" a simple actor, he may obtain the second role or in some scenes become a co-star. But he is still not the protagonist. The doctor has the first and the last say. Which scenario-version of the patient-doctor relationship permits an inversion of this role-distribution?

2. E-health without the doctor: new interlocutors of the patient

a. Do ICT create a new ideal world without doctors?- or- Can we manage it without doctors?

i) Internet as resource of preventive health information

Above, we had the opportunity to see some more or less specified uses of the Internet contributing to the development of communication between doctor and patient. From e-mail communication to electronic scheduling of appointments, the internet seems to make the relationship of the two more functional, more standardized and more pioneering.

However, we have still not discussed the most common use of ICT, the Internet as a resource of information of any kind. With one click you can enter many different worlds; you can find information about anything you need. How does this source of information function in the sector of health? Can its use influence the relationship between doctor and patient?

The first reaction to the last question would be that the search of information on the internet is a lonely process-activity. All you need is elementary knowledge of using a PC, an Internet connection and mere curiosity to learn more about an issue, a person, a situation, so why not, about health [Freyne, 2009].

Regarding health issues, internet selected information can function preventively [Gold, 2011]. While the above mentioned uses of ICT presuppose a health problem or at least a person who is supposed to be patient, the use of the internet for the search of health information does not presuppose any of them. The most common internet activity concerning health is simply reading about health [Wanberg, Andreassen, Kummervold , Wynn, Sørensen, 2009]. Health information refers to everyone and offers specific healthy lifestyles and warns about the risks that some habits have. Everyone has the opportunity to get informed about the dangers that his life-model bears. When you know, you can decide and so you can become the health manager of yourself. Never before was it so easy to learn about the consequences of your habits, never before was it so easy to find alternative life style models and ways to change your bad routine. With all this in mind, the seemingly passive situation of reading information on the internet can lead to an activation of the population who can opt for a healthier life. The individual sensitization to a precautionary protection of health through better information, can contribute to the reduction of the illnesses caused because of false life models and so to a macroscopically fairer distribution of the health care resources in illnesses caused with no responsibility of the patient.

The counter argument in this macroscopic analysis would be that the knowledge of the increased possibility of an illness because of a harmful habit does not entail the choice of a person to refrain from it. In any event, this knowledge permits him to choose after having taken under consideration the pros and cons of every alternative. The knowledge of the dangers simultaneously creates a responsibility. When you know that something is harmful and all the same you do not refrain from it, you must sustain the consequences, which do not refer only to the potential disease but also to the financial cost of your treatment. The trend of the private health insurance industry to raise the premiums of persons who follow an unhealthy lifestyle and similar discussions in the domain of social security and of the reconstruction of national health care systems which are on the brink of bankruptcy, are indirectly related with the easy access to the information [Winkler, 2002]. You are responsible not only because you follow an unhealthy habit, but more so because you *know* that this habit is unhealthy. Then, even the choice of the harmful activity is a product of autonomic-thinking. Through internet information, the principle of autonomy is promoted. This thought can further ethically legitimate the pay of the treatment's cost from autonomous patient himself and so promote the principle of distributive justice in the field of health services.

And how does this kind of internet information affect the doctor-patient relationship? In reality the aim of this preventive use of the internet in the field of health is the non-creation of such a relationship. The reasoning is to get informed about healthy lifestyles so as not to become ill and not to visit any doctor. In this sense, the internet can function as a shield that keeps the citizens outside of hospitals and away from medical personnel. In this concept of internet use, professionals can take the role of the internet consultant, being the ones who enhance internet sites with useful information about a healthy life. There is no doubt, that preventive action and the warning for harmful habits is based on research and scientific reports. In a precautionary acting society, experts and the medical community in general are adapted accordingly by adopting a more theoretical, a more intellectual role. Technology facilitates experiments, prognoses, which presuppose a capable preventively acting medical society. The narrow relationship between doctor-physician and patient is converted into a wider relationship between a doctor-researcher and citizen.

Nonetheless, the preventive action from both sides cannot always be successful. Citizens are autonomous and may select a harmful lifestyle, the doctors-researchers cannot foresight all potential causes of every illness and lastly the illness and the choice of its victims sometimes depend on luck. Under these circumstances, the information obtained through the internet cannot exclude the potentiality of the creation of a doctor-patient relationship. Anyhow, even in this case, the preventive action is not excluded but obtains a specific content: A patient can search for information on the internet about some symptoms that have already appeared and so realize that something is wrong with his health [Andreassen, Bujnowska and others, 2007]. In the field of medicine, time is a priceless factor and delay can cost a human life. Many times people depreciate or do not correctly appreciate some warnings of their body, they give them no importance and they go to the doctor only when the pains or the symptoms have become very serious. But then it is sometimes too late. The facility of internet research can prevent such cases. It is easier for a patient to search on his computer for some information a bit before deciding to go to the doctor. Whether internet search in a specific case is finally positive or negative for the existence of an illness, the search is always related with an advantage: In the first case, patient and doctor can cope with an illness in time and effectively in its initial stage. In the second case, by realizing that nothing wrong is happening, the patient saves the time of an unnecessary visit to the doctor and the doctor has the time to see another patient, who does needs help. Therefore, regarding the doctor-patient relationship the "home tried diagnosis" can be in favor of both the patient and the doctor. In this sense, internet information influences the time of the beginning of the doctor-patient relationship.

Nonetheless, we cannot overlook the possibility of a negative result of this patient initiative: The non-expert citizen does not always have the knowledge to understand the information provided through the internet. Information does not mean knowledge. The misconception of some information can lead either to a devaluation of some symptoms, to a false reassurance of the potential patient that everything is ok, or to an overvaluation, which can negatively influence the psychological condition of the patient without good reason [Lo, Parham, 2010]. The simple reading of some information does not mean its comprehension.

ii) Internet as a resource of health care information

Up until now, we have seen how internet information can hinder the creation of a doctor-patient relationship and how it can accelerate or decelerate the time of its beginning. Going further and for the most familiarized with ICT patients, internet information can be a guide to choose the best doctor. Through new technologies the patient is transformed into a demanding customer, who selects information, compares services, reads the comments of other users of the same service or the same service-providers and then decides.

And what happens once the doctor-patient relationship has been created? Can internet obtained information serve any use? Even at this moment, the internet, as a medical information resource, can have various functions with different reflective effects in the doctor-patient relationship. The patient can, with the stroke of a computer key, find a great deal of information about every illness and every medication. Before the visit to the doctor, the patient can obtain a generic idea of his health condition by "googling" the symptoms that appear. In this way, upon the first visit he may more easily and more quickly comprehend the recommendation of the doctor and can have

a more active role in the meeting, transforming the doctor's monolog into a dialogue. Many times doctors do not have the time, the disposition and the patience to clarify in detail the health condition of the patient and they are limited to a brief description of the diagnosis and in the prescription of medications, whereas the causes of the disease are not always satisfactorily analyzed. Thanks to the internet the patient has the possibility and the time to search the issue that preoccupies him on his own and more extensively and then visit the doctor with more precise and substantial questions [Quallich, 2005]. A dialogue with a "thorough" interlocutor is much more effective and constructive in comparison with a dialogue with a patient, who is based only on the generic information of his doctor. Even if the knowledge asymmetry between doctor and patient remains, his extent is reduced over time. The patient can obtain information independently and in parallel to the information adopted by the doctor in a way that the paternalistic model shrinks and the model of partnership emerges step by step. The seemingly active participation of the patient in the traditional informed-consent model with an only consent, which is confined to a simple yes or no to the propositions of the doctor with respect to a concrete intervention, now becomes virtually active: The consent or dissent of the patient is based on the information that he has obtained himself, by searching on the internet, by dedicating time and by trying to become truly informed. The global image of his health situation can reflectively influence the informed consent process, without which no medical intervention is legal. Until now, the consent of the patient was based on the - due to a lack of time - brief and often hazy informing provided from the doctor, whose first preoccupation was the typical reassurance of the consent of the patient, written on a sheet, as a legal safeguard in the case that something should go wrong. Now, the patient has the opportunity to select, himself, all the information that makes a consent truly informed [Bovi, 2003]. Although at the present it is too early to speak about an absolute inversion of the informed consent process and although the doctor still remains the central provider of the information related to the consent, the patient living in the era of e-technology has, at least ethically, co-responsibility and cannot always hide behind the unfamiliarity of health related issues.

The above described situation of a patient seeking on his own for the necessary information with respect to a treatment seems to bear no difference from the picture of a consumer, seeking via the internet information in order to buy a car or a CD-player [Rogers, Mead, 2004]. The patient-consumer knows what he wants and he demands it. He seems to be the powerful part of the relationship and when he does not find what he needs he changes the kind of service (the kind of treatment) or even the provider of the service (the doctor). The doctor is dependent on the desires of the patient-consumer so as to satisfy his client and to cope with the competition. Under these circumstances, the patient-doctor relationship is economized and seems to need no special "treatment" in relation to the remaining transactions, concerning provision of services or the purchase of products.

iii) Decision aid platforms and social networking as special internet contributions

In order to go from a system where the patient has practically affirmed the choices of the doctor to a system where the latter simply performs the autonomous decisions of the first, the internet, apart from the indication of medical information offers more substantial and dynamic help. The decision-aid platforms are one of these innovative offerings [Duffin, 2010]. As the site of the most well-known international database for support in medical choices "MED-DECS" (www.med-decs.org) mentions: "a decision

aid gives support in making decisions about medical treatments. A good decision aid informs the patient about the suitable treatment options" while clarifying that each disease has its own decision aid. In reality, the decision aid platforms are an intermediate situation between the generic information offered on information sites about the x or z disease and the specified information offered by the doctor during the patient visit. Since such databases are created by scientists, medical professionals and other academic institutions, they provide the appropriate scientific level and in reality they take on a big part of the task of the traditional doctor-patient relationship. The typical relationship between doctor and patient remains but becomes more impersonal. The patient communicates to his doctor the decision that has been made before, thanks to the general aid provided by databases. Maybe ultimately, because of the difficulty of the more modern model of informed consent to practically surpass the traditional paternalistic model of the decider-manager-dominant doctor, the internet decision aid offers external help to the patient in order to participate in the traditional relationship in a more active way. In reality, in the traditional concept of the dominant doctor, the relationship was not more personal because the patient simply had no free space to develop his personality. The decision aid databases are a new scene which allows the patient to have an autonomous say.

Decision aid platforms like all the other mentioned internet applications treat the patient as an ordinary consumer seeking for health services. Nonetheless, none of these applications pay any attention to the particularity of the patient's condition, which is not exactly the same as the condition of a simple consumer. The patient is in need and he is facing life and death issues. A simple consumer is not as emotionally feasible as a patient, who needs support and special emotional treatment [Stein, 2006]. Apart from the family and the friends of the patient who try to support him but in reality many times need more psychological support than the patient himself, the only person who can calm and encourage the patient is the doctor. The internet asserts this capability and appears to have the tools to replace the doctor even at this emotional level. Expect for the sites that contain medical-scientific information, there are also sites that contain more "humane" information, namely the personal experience of persons affected by the same disease. The most characteristic site of this kind is "Patientslikeme"(www.patientslikeme.com). Social networking with persons with similar problems and concerns offers psychological benefits. Learning of not being the only one suffering from a specific disease and getting ideas of how others cope with the problem is a relief [Lo, Parham, 2010]. The communication with and the support from "fellow-sufferers" evades on the one side the cold, neutral and more distant way of a doctor who perceives even the support of the patient as a part of his professionalism and on the other side the emotionally charged, subjective and turbulent attitude of the family, which in reality, is part of the problem.

Social networking has the additional advantage of anonymity. The patient can express his fears; can show his feasibility without facing the danger of stigmatization. He can express himself freely and he can share thoughts and emotions that in a face-to-face communication he could not. Because of this anonymity, the internet is especially attractive for persons who suffer from diseases not sociably acceptable [Martin, 1999]. Psychiatric diseases and several kinds of addictions belong to these categories [Gustafon, Boyle, Shaw and others, 2011]. Social networking is a refuge for these persons since it contributes to a decrease of the feeling of anxiety and isolation, and therefore to their healing, which also depends on emotional and psychological factors [Klose, Szmukler, Lloyd, Koivunen, and others, 2010]. The internet allows patients to be more sincere in respect to social blameworthy habits and actions, which they perform and which cause the disease. Even persons who would not visit the doctor to

ask for help because of the danger of stigmatization and social exclusion find a confident helper via the internet.

iv) Intermediate conclusion: Internet information as a resource of patients' independence and doctors' hostility

In the above descriptions and scenarios related to the internet, the patient seems to obtain a relative autonomic role in respect to the doctor. Until now, the patient participating in the film "The treatment of a disease" was in the scene only with the attendance of the doctor. His "lines" were always an answer or a succession of the doctor's "lines". Now, due to the Internet this set seems to have changed. There are scenes where the patient plays alone. He uses his computer to find the necessary information and he visits interactive sites to find the emotional support that he needs. If we observe this new condition more carefully, we are going to realize, even here the patient does not play alone, he has simply found new interlocutors who aspire to replace the doctor. Behind medical information stand scientists and professionals who give the technocratic aspects of treatment. Behind the psychological support stand other people, fellow-sufferers who undertake the emotional encouragement of the patient.

And what about the doctor? He seems to remain one of the interlocutors of the patient but obtaining a more passive role, performing what the patient needs, answering his questions and apologizing for his proposal to follow the first and not the second kind of treatment. The doctor is not merely the unchangeable ruler, but the eternal fighter who always has to defend his opinions against the patient-consumer, who has made his decisions without the doctor's contribution. Under these circumstances it is not peculiar that, in all the research performed until now about the influence of the internet in the patient-doctor relationship, doctors appear to be negative [Henwood, Watty, 2003]. It is thought that an already informed patient challenges their power, their knowledge and their expertise. The more confident the patient becomes the more challenged the doctor feels.

Another fear of the doctors -that they, however, do not admit-is the danger of having patients who are going to be better informed than themselves. It is a fact, that doctors do not always have the time to take in all the evolutions of medicine rapidly or to know every possible treatment of a concrete illness. The patient, who has a concrete problem concerning him personally, has the time and the motivation to seek for more information [Gilmour, 2007]. In this context, the challenge of the doctor's power and for the same reason the resistance of the medical society in the use of the internet as an information resource of the patient can be explained.

But is this actually the situation? Are patients so capable of understanding the medical information, so as to decide on the right treatment and propose it to the doctor? Is the negative position of doctors only a reaction against the threat of their monocracy or an expression of their anxiety about the protection of patients?

b. Return to the real world or why the use of the internet as an information source is not so ideal and the doctors not so redundant

In the typical paternalistic scheme, the whole process of patient's healing takes place "within the four walls" of the physician's office. ICT offers an additional scene, where the patient can act and cope with the illness without the presence of a

physician. Informing the patient, his emotional support, the elucidation of his questions can now take place on the World Wide Web. Although this alternative appears to enhance the autonomy of the patient, emancipation from the doctor is not really secure.

i) Danger of information's incredibility and break of confidentiality

Apart from the fact that the possession of a computer is not self-evident for every person but dependent on his economic and social situation [Rogers, Mead, 2004] and that the use of ICT can cause additional disparities and inequalities in the provision of health care services, the greater problem related to the use of the internet for the seeking of information concerns the difficulty of controlling its credibility. The internet offers everyone the possibility to read but simultaneously offers everyone the possibility to write without demanding the registration of their name [Gilmour, 2007]. Anonymity loses the sense of responsibility in the case of provision of inaccurate or false information. The lack of central control of the data transfers the burden of checking to every internet user individually. In the case of medical information uploaded on the internet, the patient as an individual user must take the responsibility to judge the credibility of the information himself. This seems unattainable when we speak about specialized data referred to treatments, substances of medication and side effects. In any event we cannot ignore the fact that the volume of information offered on the internet increases but in parallel increases the complexity of medical knowledge, therefore the difficulty of its interpretation and comprehension [Berger, 2011]. So the danger of misinterpretation is present, since the patient does not have the knowledge to judge the quality of the content of the medical information.

Even more dangerous is the provision of deliberately misleading information, which is often related to financial interests and the medication industry. The provision of medical information and advice is often related with the proposal of some medication of a concrete pharmaceutical industry which is not the only appropriate. Many times health issue websites contain advertisements of medication and health services. Internet advertising can be targeted and based on the personal health information of a patient. In general, the advertisements of pharmaceutical companies is the only way of funding for internet sites which offer free information about health issues to patients. Even in the case that internet sites do not propose a specific product or health service institution directly, there is the danger of disclosure, in reality of selling the personal data of web site visitors to pharmaceutical industries and private health organizations, which may then expose the patients to another danger: e-buying of medication. Pharmaceutical industries are organizations with financial interests, which promote their product even if it is not the best for a concrete patient. Although their product has particularities related with the risk of direct maleficence of the buyer, these industries do not obey like physicians or nurses under ethical codes, which pose some limits in order to protect the vulnerable nature of the patient. When a patient orders a drug, a pop-up can present an additional drug, which is not necessarily better or even appropriate [Lo/Parham, 2010]. An impulsive purchase by a simple consumer may lead to monetary damage, an impulsive purchase by a patient, however, can cause much more important damage, which may even lead to death. This lack of control brings the pharmaceutical industries in a beneficiary position, which the patient, who is already in the backseat because of the illness, cannot manage. The dangers and the risks of influence is the price that the patients may have to pay in order to obtain the free information.

Similar problems are created by the use of social networking as a tool of support for patients. There is no doubt that the psychological benefits of opinion exchange with people who face similar problems and want to share their personal stories in order to animate their fellowmen is of great importance. But there is no guarantee that it will always be successful. The presentation of a story with no clinical details can lead to misunderstanding and false auto-diagnosis on the side of the patient who thinks he is suffering from the same disease or who is convinced that the appropriate treatment for another person is also ideal for him, overlooking the particular and individual character of the illness. Moreover, a sad or a sadly presented personal story may negatively influence the patient and provoke depression, reducing the probability or the rapidity of healing, many times without reason. Additionally, there is also no guarantee for the credibility and the veracity of the stories presented [Hordern/Georgiou/Prgomet, 2011]. Social networking is also uncontrollable and nothing can exclude the fact that it may be supported or guided by financial-industrial interests.

In order to reduce these dangers, some initiatives have been developed like Health on the Net Foundation, which among others have created some informal codes of ethics, like Health On the Net (HON) Code (http://www.hon.ch/HONcode/Patients/Visitor/visitor.html) and E Health Code of Ethics, which aim to guide site managers to use some mechanisms which do not guarantee the quality and accuracy of medical information presented on the site, but the possession of HON certification after voluntary application demonstrates the intention of site owners to contribute to the attempt to e-publication of credible medical information. The certification depends on the fulfillment of some criteria, by the application of which the users of the internet can judge the credibility of a site containing health issue information. [Castelló-Zamora, 2010]. Among the criteria is the disclosure of its owner, supervisor and sponsor, the frequency of updating of information, the prevision of information consent of the user in respect to his personal data, the clear distinction between genuine medical information and advertisement related to medical products and services, the reference of legitimate licenses and other credentials of the professionals that upload the medical information on the internet. The lack of these elements does not mean the incredibility of the sites, but makes it difficult for the patient to ascertain this credibility [Abdel-Karim and others, 2012]. Even the use of these criteria presupposes a degree of familiarization and computer literacy of the users. According to researches, even when a site accomplishes the above criteria of quality, the majority of users do not pay attention to them but when choosing internet resources they are influenced by external and unimportant criteria, like the lay out or the modern design of the site simply because they cannot judge the quality of such a specified field like medical information [Abdel-Karim and others, 2012].

The new interlocutors of the patient do not seem to be so harmless and their help is not always altruistic. Under these conditions, the doctor's community hostile-unfriendly attitude against e-health is not so inexplicable or incited by subjective motives related with the maintenance of the primacy of doctors. Internet information is not reliable and can harm the patient [Fokner-Dunn, 2003]. It is not a groundless fear of doctors, that the patient is going to ask for an inappropriate treatment just because he has read somewhere on the internet that a certain concrete therapy is the best or because some fellow-sufferer has used it successfully [Kim, Kim, 2009]. Taking under consideration internet sites offering generic information and controverting the opinion of the doctor who has come to a result after a face-to face examination, leads to a loss of trust and it is therefore, reasonable to harm the relationship between doctor and patient [Kaslow, Patterson, Gottlieb, 2011].

Unfortunately, the average visitor of the internet with his elementary computer knowledge, lack of medical knowledge and charged emotional condition because of his illness, cannot cope with these difficulties alone. He needs support provided by another interlocutor, who cannot be other than his personal physician, whose task in the era of new technologies ultimately increases. The doctor should not only give the right diagnosis and inform -through a monologue- the patient about the nature of proposed intervention and treatment in order to ensure the informed consent -both tasks (even the traditional implementation of the informed consent process) are principally related to the biomedical ethical principle of beneficence and non maleficence- and ignore the principle of respect of autonomy, which also obliges medical professionals. The use of internet technology gives the opportunity of promoting the autonomy of the patient. The patient alone cannot manage this opportunity properly. For this reason, doctors should undertake the additional role of educators and consultants of the patient in his «walkabout» on the internet. An example of this is the proposal to the patient of some internet sites, the credibility and accuracy of which is controlled by the doctor himself. This is of great importance and very functional in the case of chronic patients who inevitably have to manage their problem every day alone. The empowerment of such patients in order to make independent living feasible, demands an expertise from the side of the patient, which can be obtained only under the supervision of his physician. [Gortzis, 2009]. These extra tasks of medical professionals presuppose firstly their own familiarization with new technologies [Murray, Burns, 2011], which is not self-evident especially for the paramedical personnel [Warm, Thomas, 2011], who offer help not only to the doctor but also to the patients [Adams, Adams, Thorogood, 2007].

ii) The willingness of both parts as necessary presupposition of interactivity

Apart from the technological capabilities, a willingness of both parts to communicate sincerely and effectively is also needed [Murray-Burns,2011]. The choice of some patients not to talk to doctors about information found on the internet, due to the hostile attitude of doctors, does not favor the configuration of a real relationship [Dedding, van Doorn, Winkler, Reis, 2011]. On the other hand, the doctor should realize, that the print-outs of the internet that the patient brings, do not mean a contestation of his authority but reflect the anxiety of the patient to find out about and resolve his problem. Moreover, the patient should not persist on a treatment and opinion read on the internet in a way that shows challenge or defiance against doctors. In any event, it is clear that *information* brought by the patient does not mean *knowledge* brought by the patient. The doctor is the only one who can interpret and decode simple health information and transmit it to useful knowledge and effective treatment for the concrete patient. A doctor-patient relationship is first of all a relationship of mutual trust and respect of the difficulties of both parties. There is no doubt that the patient is the vulnerable part because of his illness. Simultaneously, the doctor is also a vulnerable part who has to fight against time, the sudden and the ethical and legal responsibilities he undertakes when he is treating a person. The internet equips the providers of information with anonymity and irresponsibility, privileges, which the personal physician does not enjoy, when facing the patient.

If we wanted to place the contribution of the internet as an information provider in its real dimensions, we would conclude to the following: The internet appeared as a new interlocutor of the patient who could emancipate himself against the authority of the doctor. Ultimately though, the possibility of obtaining medical information outside the

doctor's office, does not lead to a real emancipation of the patient, but gives him the opportunity of empowerment only with the help of his personal physician. Not only the treatment process, but also the real information process takes place in the doctor's office. The increasingly reduced tolerance to the paternalistic model does not correspond to a reduced presentation of the doctor. To come back to our theatrical play, the internet as an information provider increases the scenes of the patient's appearance. In this sense, his role becomes more active but also increases the time of the doctor's presentation who undertakes not only the role of the healer, but also the role of the interpreter, educator and consultant of the patient in his association with new technologies. The new role of doctors presupposes skills and is in favor of really talented doctors, who can encourage the activation of really responsible patients.

C. Conclusions: The performance ends

At the beginning of this presentation, we presented ICT as a new theatrical scene, which could add a new version of role distribution in the classical and diachronic play called "The treatment of a disease". During our consideration, we realized that the impact of ICT on the doctor-patient relationship is not always successful, not equally useful for every situation, and not always self-evident.

The utility and potentiality of use of these new technologies by regulating health care issues depends on a great range of factors [Rozenblum/Jang/Zimlichman and others, 2011]. Macroscopic thinking, the use of ICT in form of telemedicine would be very useful firstly for the population of the developed western countries who lives in remote areas. Such use of ICT promotes the principle of distributive justice within the borders of a country. Similar thoughts can be made for the third world countries, where the few doctors are concentrated in the center and the majority of the population living in the periphery has no access to health care services. In this case the application of telemedicine can obtain a broader character by permitting the treatment of the population of disadvantaged countries by the best doctors of Europe and the USA. The principle of distributive justice is enforced further at a global level, since it heals the inequities created by the incidental element of being born in a poor country. In all these cases, ICT do not simply influence the doctor-patient relationship. Even more so, it creates it.

The impact of ICT on health issues depends further on the kind of illnesses faced. The importance and utility of new technologies is not identical in every form of health problems. In case of illnesses which are socially stigmatized, like alcohol addiction and schizophrenia, medical advice through the internet facilitates patients who would otherwise refrain from treatment. The contribution of ICT in case of chronic diseases is enormous. The technical possibility of insertion of "home-made" measurements of pressure or glucose in interactive EMR allows the continual adaptation of the healing process in updated medical data. In this way, patient and doctor contribute to the promotion of the principle of beneficence, share the responsibility and interact in a way that reinforces their relationship. Furthermore, in the case of chronic patients, the use of the internet as a simple source of medical information helps with the familiarization with the problem, in its smoother incorporation in the everyday personal and family life of patients. A conscious patient is a much more associable and competent interlocutor of the doctor than a patient who skulks from the problem.

The reference to a triadic relationship between doctor, patient and computer [Pearce, Arnold, Philips, and others, 2011] overprices the role of the computer and is a little exacerbated. Health care remains a "tango for two" even in the environment of ICT.

In any event, the initial question about the new role distribution that ICT provokes does not only have one answer. ICT offers not only one new set of acting but several, since each of their applications, when used, can have a different influence on a doctor-patient relationship: others presuppose the simultaneous acting of doctor and patient (telemedicine) and others permit the lonely acting of the patient (information seeking), which is transformed into an autonomous acting only with the posterior contribution of the doctor. If we want to take a general position we would say that ICT offers the possibility of a more active role for both parts. The doctor does not lose the first role that he had in the traditional paternalistic model and in reality had maintained in the informed-consent model, but shares a part of it with the patient, while undertaking some new tasks. In this context we could support that ICT enhances the shared-decision making model and its greater impact does not concern the empowerment of the one or the other part but of the relationship.

The real impact of new technologies on the patient-doctor relationship is, at length, a question of temperament, national and personal [Andreassen, Bujnowska and others, 2007]. Regarding this issue from a national perspective, it is evident that the culture of the USA is more liberal and traditionally opts for the priority of the principle of autonomy whereas Europe follows a more protective model which does not devaluate the paternalistic model in all forms of relationships. And when we want to include in our cadre-reflection the developing countries, we would add that there the paternalistic model is the only realistic choice: the patients are not only computer illiterate, but face problems of general illiterate and the few existing doctors have no time for many explanations [Norman, Aikins, Binka, 2011]. ICT, of course, democratize information and knowledge, but only from those that have internet access. The ideal world, sometimes, refrains so much from real life…

In any case, the modulation of the patient-doctor relationship depends on the personality of both parts. There are doctors who seek for the patient's participation and others who find it unnecessary. The patients have the freedom to choose a doctor autonomously, one whose personality corresponds better to their needs and wants. There are also patients who want to participate actively in the decision making, undertaking responsibility. There are others, who only want to be completely informed about their condition but refuse their involvement in the decision making process. Lastly, there are those who do not even want to be informed because they know they cannot face a negative diagnosis [Lo, Parham,2010]. But even this choice is an expression of autonomy. That simply means that even the same application of ICT does not have an identical impact on every doctor-patient pair. The personality of the doctor and patient is the element that principally modulates the relationship. In this sense, the reference to relationship models is not so useful or may even be misleading. In reality, the doctor-patient relationship has not only obtained two or three versions in the whole history of humanity. The play "The treatment of a disease" is written afresh every time that a doctor and a patient begin a partnership. What is more interesting is the fact that patient and doctor with their social, economic condition, their personality, their values and preferences are not only the actors but also the authors and the directors of their common story.

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