

# Ethical and Legal Arguments about Telemedicine in Colombia

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**How to cite this paper:** Pereáñez, J.A.G. (2017) Ethical and Legal Arguments about Telemedicine in Colombia. *Journal of Computer and Communications*, 5, 116-128.

<https://doi.org/10.4236/jcc.2017.53013>

**Received:** February 28, 2017

**Accepted:** March 10, 2017

**Published:** March 13, 2017

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## Abstract

This paper makes a reflection of humanistic approach about telemedicine in the cyber culture context, including a debate on the “digital era” and the nature of human communication. It is aimed at interpreting the influence of the technological era in the communication between the emitting subjects and receptors that emerge from communicative relations in telemedicine. This is the result of the analysis on legitimacy and legality of Communication for Health among individuals interacting in the cyberspace, mediated and conceived by modern technologies such as computer science, telematics and cybernetics. Telemedicine, according to ethical and legal proposals, can be subject of criticism because of the displacement of the medical doctor-patient relationship. Bigger distance and asymmetries in the medical act are established, being exposed to the inter-subjective relations of the cyberspace that immerses the patient into a deeper vulnerability, mediated by the technology that overflows him. A literature review through the empirical-analytical method, aimed at describing the impact of telemedicine in users, was done. This technology of recent use in Colombia promises to become a tool to support the solution of some health problems. Its development must be linked to the use of regulations that involve the “must be”, and its application must be decided according to legal principles that take on responsibility on medical doctors and technicians. The inevitable development of medical technology and its application in telemedicine may lead to the vulnerability of ethical principles, and consequently, the harm and misinterpretation of the medical act.

## Keywords

Medical Act, Ethical-Legal, Cyberculture, Digital Subject, Telemedicine

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## 1. Introduction

We are in the middle of a new cultural order, characterized by the boom of new

biotechnologies and mediated by the generalized use of digital communication expressed in the theory of information technology. This situation has generated significant transformations that impact the “life world” of all contemporary citizens, including the inhabitants of developing countries. This paper proposes an ethical and legal analysis of the impact of new technologies, especially that of telemedicine in the expression of medical consultation in the cyberspace. This type of technology has a notable influence on the science-technology-society relationship as communication for health between medical doctor and patient.

Telemedicine proposes a dialogic interaction online, by using sophisticated technology of multimedia and hypermedia design. This way, the medical act is exposed to the “digital corporeality” and the “virtual space”, with computerized information that produces a fundamental transformation in the structure and meaning of attention and medical formation. This paper revises the impact and use of telemedicine as new technology and suggests additional arguments about the consideration of the “digital subject” in the “virtual medical act” and its ethical and legal implications.

The first documented historical data coining the term “telemedicine” has reference in the Medicine Faculty of Nebraska University in the United States in 1959, when through a televised session, a socialization of a group therapy with an expert monitoring in psychiatry was proposed [1]. Five decades later, it can be stated that the progress of telemedicine is due to the permanent exchange of medical information; assuring with this, some progress in the model of attention to patients.

According to Doctor Marta Vergeles, telemedicine practice has achieved, throughout time, the implementation of different information technology tools that have demonstrated significant advances in “medicine at a distance”, applying expert instruments in telematics that have shown vertiginous advances in virtual consultation, promotion and health prevention [2].

According to the World Health Organization, telemedicine is “*the supply of health attention services, in which distance constitutes a critical factor, by professionals who appeal to information and communication technologies in order to exchange information to make diagnosis, suggest treatments and prevent accidents and diseases as well as the permanent formation of health professionals, evaluation and research activities aimed at improving people’s health and the communities’ where they live*” [3].

In first place, this text refers to the context of telemedicine to then characterize the cyberspace and describe the operating relations of telemedicine as cyberculture. In another part, we refer to telemedicine in Colombia including its ethical and legal aspects, to finally propose a discussion.

## 2. The Context

Colombian experience in the satellite field is recent. We have, however, remarkable groups in astronomic observation backing important activities for the development of the country: in oceanography, agriculture, order of natural re-

sources, prospecting of gas and oil reserves, ecosystem studies, early warning of disasters, vigilance of climate change and telemedicine, among others. The important work that some Colombians have been developing in the NASA, in the Space Engineering Department of Austin Texas University and other laboratories in the world is a potential to define a better vision of necessities and opportunities for Colombia in the field of science and space technology. During the last five years, some new technological knowledge has been appropriated, which has permitted the creation of initiatives to solve our most urgent communication problems making way to the globalization of information.

In the last decade, the labor of research groups, specialists and institutions has been increasing. They have developed important works in telecommunications, geo space, and global and physical geo positioning which have increased important capacities in knowledge, application of information, and have stimulated the creation of the Comisión Colombiana del Espacio, CCE (Colombian Commission of the Space), created for Presidential Decree 2442, of 8<sup>th</sup> July, 2006.

The mentioned decree, granted faculties to the Ministry of Communications to coordinate telecommunications in the country with the “digital inclusion” strategy. That is, the use of space technologies, products and services derived from them. Likewise, the social projects for connectivity also increased, even in isolated and remote zones. The use of satellite nets and the Broadband COMPARTEL program increased as well. This positioned a new axiology centered in the value chain that the internet provides, and the new market of fiber optic.

This new situation in telecommunications asks for ethical and legal reflections, especially the revision and conditioning, for Colombian legislation, of the agenda for the World Conference in Telecommunications CMR07, of the International Telecommunication Unit-ITU.

### **3. The Cyberspace**

The concept of cyberspace is part of a contemporary dynamics of social communication, as Lechner [4] and Boaventura de Souza [5] have characterized it. It is a form of mobilization through technologies that encourage the communicative interaction online. Inside this context, the internet is potentially visualized as a “fertile strain” that favors human interaction through different technologies at disposal. These technologies are becoming more and more sophisticated, materializing concrete actions in subjects; something that is observed in the whole world.

Despite this, a kind of “social firmness” has appeared in the Spanish-speaking context, aimed at facing this type of cyberspace communication, also called “virtual”, in spite of its marked influence in the social mobilization of the last years. This is and will always be considered “media” that communicate in a diverse way but does not convert social practices. Its real meaning is offered by communication online and its gradual and decided insertion in social life, especially in Latino America, fostering its mass use and its denotation as an impor-

tant characteristic of “technological innovation”.

Well-known scholars such as Finkelievich [6], Escobar [7], Tamayo, León and Bush [8] among others, are part of a non-pretended agreement in which that movement of cyberspace communication is starring an investment in social property and in human heritage. Communication mediated by technologies has scaled a social space in a short time, as well as a general acknowledgment that there are other conditions and spaces for the collective experience of communication, gradually producing a new social and cultural area of interaction for human communication.

Some English and Spanish speaking medical societies have implemented interactive consultation services online, demonstrating with this an overcoming of the geographical spaces and proposing diagnosis and prognosis through the unification of medical knowledge through the cyberspace. This evinces, as Valderama [9] expresses it, that each process has its own language and its own thematic coordination.

The truth is that with telemedicine as a communicative construction in the cyberspace, the medical act is exposed to the immateriality of an electronic net, validating it from the beginning as a social practice that doesn't fight with cultural values, lifestyles, and sense constructions. This is contrary to what has been considered in the face to face communication between medical doctor and patient, mediated by a relation with evident features of asymmetry, verticality, rigidity and paternalism in its action, in which the only bidder and agent is the medical doctor.

The cyberspace conceived as a virtual platform for interaction in the medical act, that is, as telemedicine, is a new way to establish and keep social links through the medical consultation repertoire. This trend has been mainly strengthened among the youngest people in the health area, especially those who are going through a process of symbolic emptiness of “the formal”, and grow a new axiology centered in a possible new code of ethics of new technologies. Telemedicine has become an incidental technological practice that is organized and regulated in a complex way, and in which techno-social frameworks of alternatives to share knowledge and medical acting converge. This opens a new manner of understanding the medical practice exercise; subjective and emergent, synchronic and inter-spatial, in this case.

Knowledge, skill and medical ability, linked to different objects or devices and created for the solution of different necessities, have contributed to the evolution of medicine in general, accomplishing a new orientation in the diagnosis and treatment of diseases. At the same time, they suggest the necessity to create new systems and methodologies inside health organizations. Information and Communication Technologies (ICTs) open new alternatives for health professionals to gather information and send it to their patients online.

In fact, nowadays, several medical tests are reproduced through Interactive Nets; for example, electrocardiograms, encephalograms, X rays, photographs and all type of medical documents for comments and diagnosis about a treat-

ment. The majority of these advances have been developed in the last 20 years, but they probably have an older history. Some historians claim that this experience has strongly spread out since telegraphy started to be used for the transmission of clinical data in the nineteenth century.

#### **4. Telemedicineas Cyberculture**

Telemedicine as cyberculture is specifically related to all the cultural constructions and reconstructions of new technologies serving the medical act. This technological practice cannot quickly be judged as good or bad, taking into consideration that it cannot be blamed for the uses done by medical staff and users. According to Sanmartín and Ortiz [10], in the evaluation of technology, the purpose is not its orientation but its adaptation to potential effects.

The conclusive and progressive science and technology advances are manifested in the telemedicine practice as technological imperative in the delivery of medical service at a distance. It is the result of science and technology studies, and programs of science, technology and society institutionalized by associations such as *National Association for Science, Technology, and Society (NAST)*, *Society for Social Studies of Science (4S)*, and *Society for Philosophy and Technology*, all of them branched in the Unites States.

Medical education has been strongly impacted by the benefits of telemedicine because it is included as a teaching technological resource. Professionals in different geographical sites provide their comments and knowledge through interactions about the same case, from different places. It is also used for consultation, diagnosis and treatments. Through monitoring, a service that in person could be more expensive can be offered.

The imperative discourse of medical learning identified as “medicine for evidence” is possible in the transmission of patients’ data through interactive nets facilitated for that purpose. An example of this is the resource of digital archive of radiological tests, among others. What is true about all this is that telemedicine as cyberculture has proposed another expertise to the nature of human communication, exposing an emitter-receptor relation for the medical act in the cyberspace; something that allows objections about its legitimacy and legality. This suggests a new approach to the ethical character of the medical profession, which will be discussed later in this paper.

#### **5. Telemedicinein Colombia**

In the last two decades, telemedicine has become popular in Colombia. One of the main advantages is the incursion of avant-garde technologies that have allowed patients in geographical sites of hard access to have a medical opinion. Data software and wireless communication have made possible that health attendance and medical act are not exclusively circumscribed to the medical doctor’s office.

Telematics, information technology and cybernetics tools joined in the concept of telemedicine have efficiently helped minimize time and costs, and have

served as a complimentary activity in the medical coverage services of the country. This was possible through Resolution 1448 of the Ministry of Social Protection which proposed telemedicine as part of the health policies in 2006.

One of the greatest achievements of telemedicine in Colombia is the supply of medicine at a distance, generating a positive impact in patients of faraway places from the national territory. They have been able to access to a personalized attention mediated by the cyberspace, connecting institutions that offer health services in different departments. The Cardiovascular Foundation of Colombia, the National University, and Caldas University have support programs of telecare and basic telemedicine, among others.

The Cardiovascular Foundation of Colombia has been able to report its experience in teleconsulting in the last ten years: the patient goes to the general medical doctor; the consultations are usually related to cardiology, so the necessary tests such as an electrocardiogram are taken, then it is immediately sent to the specialist through the system of Electronic Clinic History, with different connections anywhere in the world. In a brief time, they can have a diagnosis and prognosis, issued by remarkable specialists who can also interact through the cyberspace, discuss about the issue, and present their best viewpoint.

The National University of Colombia and the Cardiovascular Foundation have a considerable number of specialists at disposal, all day long, in order to attend the teleconsulting; they have a significant amount of cases successfully attended in the last years. This telemedicine service represents a great advantage for the patients who live in faraway places because they benefit in price and space. For many of them, this is the only way to access to a specialized medical service.

Another great achievement of telemedicine in Colombia is the advance to standardize the coverage of Telecuidado Intensivo Intermedio (UCI). This is used in situations of complex pathology with patients who require intensive assistance 24 hours a day. In these cases, the patient is in a health center and his bed is connected to a monitor of vital signs, watched by the specialist without being in the same geographical place of the patient. The professional can do a follow-up with programmed alerts and give precise instructions to the medical staff of the center.

According to Doctor Eduardo Romero, director of the Telemedicine Center of National University in Colombia, the application of telemedicine in health services in the country mark a special moment in users' assistance and a change of modality in the medical act, offering fast access to different specialists without spatial-temporal limitations. Doctor Romero also states that all the information that currently gravitates in the cyberspace has generated non-passive patients with their health-sickness process; patients who interact with their doctors about diagnosis and prognosis.

Nowadays, it is easier to access to detailed medical information through the internet, in clinical protocols and in a considerable amount of material on medical education that has brought significant advances in the medical doc-

tor-patient relationship. Medical paternalism has been displaced by the informative empowering of health service users, reducing the existing asymmetry in the doctor-patient relationship and generating a more equalitarian dialogue about the prescribed treatments, as well as the terms that contextualize their symptoms, even the diagnostic interpretation of their lab tests.

## 6. Telemedicine, Legal and Ethical Aspects

In this section, it is important to revise the impact and use of telemedicine as a new technology, considering some allusions about the “digital subject” and the “virtual medical act”, besides its legal and ethical implications in contents of national and international regulations. The context is mediated by the reach of new neologisms that telemedicine has brought due to the boom of the information globalization. We find for example, Health Nets, Tele-ambulance, Tele-therapy, Tele-analysis, Tele-consulting, Tele-monitoring, Tele-diagnosis, Tele-psychiatry, Tele-emergencies, among others.

Numerous studies conducted in several countries provide important findings about the positive impact of telemedicine in health services. This has significantly contributed to the improvement of the medical assistance quality; it has also demonstrated economic reliefs and time reduction between the delivery of diagnosis and prognosis, and between therapies and the extension of assisting services at a distance. However, the efficacy and efficiency of telemedicine should be evaluated with ethical criteria that analyze supposed technological abuses about medical treatments and diagnosis methods. They should also analyze the adequate use of technology in health services and its subsequent medical responsibility in the context of evident inequality in the distribution of resources for the attention of patients, as it happens in Colombia.

We cannot deny the possibilities that telemedicine offers to accelerate health services taking into account the speed of communication and transmission of general medical information, encoded in images and signals for the improvement of medical procedures. Nevertheless, this must always be considered as a support tool to improve quality, not as an end in the final consideration of assistance service. Additionally, we consider that telemedicine does not replace the subjective experience of the doctor in communication with his patient. This type of communication may dehumanize the medical act, replacing it with equipment and images of tele-diagnosis, justifying it with the fact that the case was solved.

The doctor-patient interaction exposed in verbal and non-verbal communication is dematerialized with telemedicine; this becomes evident with the exclusion of the patient’s word, the increasing loss of his expressions and the definite absence of cordiality and trust in the medical act. Telemedicine as a “Virtual Medical Act” and “Tele-medic Remote” consultation sets remarkable limits in human interaction in time and space, neglecting important symbolic information that only the medical doctor can interpret about his patient in a face to face, dialogic and semiotic way.

Tactile communication between doctor and patient is removed in telemedi-

cine, with evident barriers that are present in the use of this technology. Besides this, the privacy of the patient's medical information is exposed in the cyberspace, opposing the professional discretion of the medical doctor, and distorting the principles of medical ethics. The possible errors with the telemedicine practice could be overlooked by dispersing the responsibility of its actors. For example, what if there is some harm in a patient's health, some software use without the proper certifications, some transmission of wrong data and evident harm to users? Who is responsible for this? Is it possible to point medical responsibilities in telemedicine?

## 7. Medical Responsibility in Telemedicine

From the political episodes of the Industrial Revolution, it was stated that all the liberal professions were equalized in responsibility before the legal establishment. Regarding the medical professional the same was stated, defining him as "someone without anything special before the law, which has him and other citizens be covered under the command of laws and its empire, reaching all the inhabitants of a determined territory" [11].

In the past, the medical doctor acted according to his social imagery and his moral duties; the medical activity was not subject to any regulation; his mistakes, errors and omissions were not reproached. That was why the medical doctor was viewed as a moral actor and an example of citizen values.

After the Second World War with the Nuremberg episodes, the medical expertise was subject to legal guidelines, of strict fulfillment, contained in national and international laws and protocols. Therefore, the medical profession is assumed as responsibility of means: "it consists of one or several people, without assuming any responsibility for the positive or negative results of their management, must provide the real or intellectual elements of moral nature that have been agreed in a contract, to a common enterprise" [12].

In Colombia, with the Constitution of 1886, the population's health is assumed as a responsibility of the State, becoming an inalienable right of individuals. This was the way it was constituted for many decades. The Instituto del Seguro Social (Social Security Institution), created in 1946 and the decadent Estado Benefactor that ruled in the country until the eighties assumed it this way.

The progressive advance and conquer of fundamental rights has gotten to include health as a right. This is also due to the dramatic advances of medical biotechnology, the globalization of information and the effective and constant consecration of Human Rights, in which the medical practice and the doctor-patient relation are inserted. After the Constitution of 1991 and with the establishment of Estado Social de Derecho, in Colombia "minimal levels of health are guaranteed, as well as food, education and housing as citizen rights, establishing health as a fundamental right and implying a set of relations between the State and the individual, aimed at obtaining its effectiveness" [13].

Currently, there is a new axiological interpretation about the medical expertise, as an obligation of means. With this, the medical acting is questioned with



supposed arguments between guilt and intention, omission and negligence to evaluate the damage that can be caused through the delivery of the service. Even the discussion about medical responsibility has been positioned on the contractual and extra contractual legal referents.

Regarding this situation, there are still controversies in Colombia, as some jurists think that the doctor-patient relationship is immersed in the contract field because it supposes the delivery of a service and has contractual aspects of adhesion. On the contrary, others state that the doctor-patient relationship is strictly extra-contractual. This is clearly stated in the words of the jurist Santos Ballesteros: *“If it is the first (contractual), it means that the harm is caused as a consequence of the non-fulfillment of a legal duty, emergent from a relation or a concrete legal link, singular and determined between two subjects. If it is the second (extra-contractual), the harm is caused, regardless or independently of such link”* [14].

Law 23 of 1981, in the fifth article, legally presents the operating relation between medical doctor and patient which is structured according to one of the following hypothesis: a) for a voluntary decision of both parties, b) for unilateral action of the medical doctor in case of emergency, c) for request of third parties, and d) for having acquired the compromise of attending people who are in charge of a public or private entity.

Likewise, in Colombia, there is a legal responsibility of the medical doctor before the Informed Consent. This takes place despite the fact that the criterion of how and when it should be applied has had diverse positions, especially because of the Beneficence Principle, and in some cases, because of the excessive Medical Paternalism. In relation to the latter, a wide Jurisprudence Line points that any medical action is justified for the sake of the patient's welfare. For this reason, the Medical Ethics Tribunal expressed its position in this respect: *“The Law of Medical Ethics, given its importance as an adequate instrument to regulate the exercise of the medical profession in Colombia, and before the proliferation of schools and the great technological advances, has led to a situation in which the circumstances under the medical doctors act are dangerously demanding and competitive. For this reason, there is a necessity of relying on regulations that guide an ethical and humanistic exercise of the profession”* [15].

Likewise, the New Code of Medical Ethics in articles 15 and 16 states: *“The medical doctor will not expose his patient to any unjustified risks. He will ask for his consent to apply the medical and surgical treatments that he considers indispensable and can affect him physically or psychically, except in those cases in which it is not possible; he will explain his patient or the people in charge of the patient about those consequences in advance...The doctor's responsibility for any adverse reaction, immediate or late, produced by the treatment effects, will not go further than the foreseen risk. The doctor will warn his patient or the patient's relatives about this risk”* [16].

After this journey through the construction of the concept of Medical Responsibility in Colombia, it is strange that the Law Project through which the

New Code of Medical Ethics is created omits ethical dispositions about the medical management in the telemedicine practice in Colombia. This happens despite the fact that the mentioned project intends to regulate the professional ethics and deontology, in the medicine field, for the medical exercise in Colombia to fulfill quality and ethics requirements for the benefit of people and the collectivity.

As expressed above, telemedicine practice could constitute a harm agent as it is exposed in the cyberspace and can escape from the regulation of control organs. Who can account for the veracity and objectivity of the medical actors involved in telemedicine? How are the diagnostic procedures legitimized? How can the legality of the informed consent be kept in this virtual practice? How can the information issued be protected and safeguarded? Who accounts for the keeping of medical professional discretion in telemedicine actions?

The World Medical Association Declaration (WMA) [17], established the Responsibilities and Ethical Regulations in Telemedicine Use and determined that besides the positive consequences of telemedicine, there are many legal and ethical issues that take place in its use. When eliminating a consultation in a common place and the personal exchange, telemedicine can alter some traditional principles that regulate the doctor-patient relationship. Consequently, the World Medical Association states that there are certain regulations and ethical principles that doctors who practice telemedicine must apply. In relation to the medical responsibility with this practice, it is stated: "The medical doctor is absolutely free to decide whether to use or recommend telemedicine to his patient. The decision to use or reject telemedicine must only be based on the patient's benefit. When telemedicine is directly used with the patient, the medical doctor assumes the responsibility of the case. This includes the diagnosis, opinion, treatment, direct medical interventions...

...The medical doctor who asks for the opinion of another colleague is responsible for the treatment and other decisions and recommendations given to the patient. However, the tele-expert is responsible, before the doctor who is in charge of the patient, of the quality of the opinion provided and must specify the conditions in which the opinion is valid. He is obliged to not participate if he does not have the knowledge, competence or sufficient information about the patient to give a well-founded opinion. It is paramount that the doctor who does not have direct contact with the patient (such as the tele-expert or a doctor who participates in telemonitoring) is able to notify follow-up procedures, if necessary...

...When people who are not professional doctors participate in telemedicine; for example, in the collection or transmission of data, monitoring or any other purpose, the doctor must make sure that the formation and competence of these health professionals is adequate in order to guarantee an appropriate and ethical use of telemedicine..."

Regarding the informed consent in telemedicine, the World Medical Association states that the standard regulations of the consent and confidentiality of the

patient also apply in telemedicine situations. The patient's information and any other type of information can be transmitted to the doctor or another health professional, only if the patient requires it, or with an informed consent approved by him. The information transmitted should be relative to the problem in question. Due to the risks of filtration of information inherent to certain types of electronic communication, the medical doctor is obliged to ensure that all the security regulations established to protect the patient's confidentiality have been applied.

In addition to this, the Colombian Ministry of Social Protection, through Resolution number 2182 of July 9th, 2004, defines the conditions of habilitation for institutions that offer health services under the modality of telemedicine. In articles 12 and 13 specifically, they refer to the informed consent in telemedicine modality and ethics in this procedure. Similarly, the Declaration of the World Medical Association also refers to responsibilities and ethical regulations in telemedicine.

## 8. Discussion

As it has been discussed throughout this paper, telemedicine brings important contributions to the modern medical exercise supported in the information exchange, but it is important to highlight that there are not legal and ethical limits for this practice. The security of the information issued, as well as confidentiality are at risk and can become a constant threaten, unless ample and efficient legal proposals are achieved.

Electronic and system engineers, as well as health professionals resort to the term "telemedicine" carelessly, which evinces theoretical and practical distances regarding its meaning and application. There is a latent risk of misinterpreting what is tacit and express in the doctor-patient virtual interaction, as the medical responsibility cannot be delegated to a communication system through internet. The medical orientation that is offered online through an interactive way cannot guarantee the confidentiality principle that can be offered in the assistance model of medical practice. This orientation becomes discontinuous and ambivalent, causing to lose the theoretical referents of the medical act in the virtual environment of the cyberspace.

It cannot be denied that telemedicine practice delivers a delicate and incommensurable quantity of information in the interactive web, with free access in the majority of the cases. Likewise, patients may resort to unreliable information because in the tele consulting process continuity cannot be guaranteed, making the doctor's responsibility invisible.

The nature of human communication is reinterpreted in telemedicine. Aspects such as legality and illegality are prosecuted in this practice, especially in sceneries like "Life World"<sup>1</sup> and health sciences. It is noteworthy the limited number of studies that revise the use and impact of telemedicine; this might

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<sup>1</sup>To Jürgen Habermas, "World Life" is the precise rationalization of culture, society and personality. Jürgen Habermas, *The necessity of Revision of the Left*, Técno, 1991, pág. 166.

happen because of its rapid validation as an advantageous means for the patients' health.

“Virtual Medical Act” and “Digital Subject” are expressions that make part of telemedicine practice and propose a new axiological view to medical expertise. Space and time get a different connotation that dilates the ethical character of the medical exercise. That is how it is proposed by the minimal legislation that exists to control and regulate the medical responsibility in the virtual setting of telemedicine.

## 9. Conclusions

Telemedicine allows patients to access a consultation in a virtual manner, being the relation with their medical doctor mediated by a computer connected to the internet in the cyberspace. This allows patients to know clinical information, manage documentation, make controls, communicate with doctors, use prescribed applications, and observe protocols, among others. It reduces displacement expenses and shortens geographical distances. Additionally, it offers the possibility of diagnostic by experts situated in different parts of the world, fast delivery of tests, and management of abundant medical information.

Anamnesis, exploration, reflection and communication, specific aspects of the medical act, are left without real presence in telemedicine. Clear and explicit guidelines for this practice are missing, leaving an ethical and legal uncertainty about its management. Telemedicine appears as a new contemporary paradigm in the medical vision, with models hardly studied in relation to its expertise and benefit. The error in virtual medical practice is not considered; there are not guarantees to hold the doctor responsible of any harm for the patient. To a large extent, telemedicine practice is not endorsed by clinical protocols that can guarantee the medical exercise of “Lex Artis”.

## References

- [1] American Telemedicine Association. A Guide to E-Health for the Healthcare Professional. <http://www.atmeda.org/ehealth/guide.htm>
- [2] Vergeles Blanca, J.M. (2001) Telemedicina: Algo más que medicina a distancia. *Atención Primaria*, **27**, 1-2.
- [3] WHO. A Health Telematics Policy in Support of WHO's Health-For-Allstrategy for Global Health Development: Report of the WHO Group Consultation on Health Telematics. 11-16 December 1997, World Health Organization, Geneva, 1998.
- [4] Lechner, N. (2007) Obras escogidas de NorbertLechner. Volumen II. LOM ediciones, Santiago de Chile, 57.
- [5] De Sousa Santos, B. (2005) Democratizar la democracia. Los caminos de la democracia participativa. Fondo de Cultura Económica, México, 87.
- [6] Finkelievich, S. (Comp.) (2000) Ciudadanos, a la Red. Los vínculos sociales en el ciberespacio. CICCUS, La Crujia, Buenos Aires, 64.
- [7] Escobar, A. (2005) OtherWorlds Are (Already) Possible: Cyber—Internationalism and Post-Capitalism Cultures. *Revista Textos de la Cibersociedad*, 76.
- [8] Tamayo, León y Bush (2005) Comunicación en movimiento. Editorial Agencia

Latinoamericana de Información, ALAI, Quito, 89.

- [9] Valderrama (2007) Ciudadanía y comunicación. Saberes, opiniones y haceres escolares. Universidad Central, Bogotá, Siglo de hombres, Editores, 21.  
<https://doi.org/10.4000/books.sdh.377>
- [10] Sanmartín, J. and Ortíz, Á. (1992) Evaluación de tecnologías. In: Sanmartín, J., Cutcliffe, S.H., Goldman, S.L. and Medina, M., Eds., *Estudios sobre sociedad y tecnología*, Anthropos, Barcelona, 74.
- [11] Cardona Hernández, Alfredo (1987) La responsabilidad médica ante la ley. Bogotá. Editorial Copiyepes, 309.
- [12] Rincón Cadena, Ana Victoria (1959) El contrato de seguro y la responsabilidad civil. Bogotá. Ateneo. 56.
- [13] Ruiz, Wilson. La Responsabilidad Médica en Colombia. Consulted on November 7, 2016.
- [14] Santos Ballesteros, Jorge. La Responsabilidad Médica en el Derecho Colombiano. Tratado de Responsabilidad Médica. Responsabilidad civil y hospitalaria. Editorial Legis. Buenos Aires. 2007, 498.
- [15] Gaceta del Tribunal de Ética Médica. Volumen 06, número 01. Enero—Junio de 2002, 152.
- [16] República de Colombia. Senado de la República. Proyecto de Ley: Por medio del cual crea el Nuevo Código de Ética Médica. Juan Manuel Galán Pachón. Senador. 2015.
- [17] Declaración de la Asociación Médica Mundial sobre responsabilidades y normas éticas en telemedicina.



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