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O Centro de Direito Biomédico, fundado em 1988, é uma associação privada sem fins lucrativos, com sede na Faculdade de Direito da Universidade de Coimbra, que se dedica à promoção do direito da saúde entendido num sentido amplo, que abrange designadamente, o direito da medicina e o direito da farmácia e do medicamento. Para satisfazer este propósito, desenvolve acções de formação pós-graduada e profissional; promove reuniões científicas; estimula a investigação e a publicação de textos; organiza uma biblioteca especializada; e colabora com outras instituições portuguesas e estrangeiras.

PATIENT SAFETY IN THE DIGITAL AGE

Paula Moura Francesconi de Lemos Pereira ⁽¹⁾

Abstract: *The advent of new technologies, the improvement of the communication and greater prominence in the huge movement of data through electronic networks, with constant use of the internet in various areas of knowledge, led to the emergence of new legal situations. In health, the biotechnological advances provide several ways to doctors to better serve their patients. The use of Internet related to medical services can occur in several ways, such as: i) source of information about diseases, treatment, online research (medical websites); ii) the practice of medicine and online therapy, remote medical consultations (telemedicine); iii) sending exams and medical records electronically; iv) purchase and sale of healthcare products and services online; v) medical advertising, and vi) procedure simulations. All of these forms cause great impact on the doctor-patient relationship transforming its traditional view. However, the information technology, although considered indispensable today, may entail various risks and damages to patients and their safety can be jeopardized. The law operators have to study the necessary means to ensure greater protection and safety of patients, not only regarding the quality of the information circulated on the Internet but the reliability of the transmission, and also the guard of the sensitive information provided by patients,*

ensuring their privacy. Nevertheless, there are neither legal nor ethical norms, uniform or specific standards, in the Brazilian or European legal systems, regulating such medical services by Internet.

Keywords: *Health Services. Internet. Information. Telemedicine. Personal Data. Patient Safety. Privacy. Dignity. Standards. Ethics.*

Introduction

The emergence of new technologies, improved communication and greater prominence in the huge flow of data through electronic networks, with constant use of the internet in various areas of knowledge, led to the appearance of new legal situations.

In health, the technological advances provide doctors several ways to better attend to their patients, since the use of telephone, fax, videoconference, Internet, etc., such as the existence of new treatments, new equipment, which facilitates both, medical professionals and patients, removing all geographical barriers.

The Internet use related to medical services can occur in several ways, such as: i) source of information on diseases, treatment, online research, medical website use; ii) the practice of medicine and online therapy, remote medical consultations (telemedicine); iii) scans, images and medical records sent electroni-

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cally; iv) purchase and sale of healthcare products and services online; v) medical advertising, and vi) procedure simulation. However, the approach is restricted, the first three hypotheses.

All these forms cause great impact on the doctor-patient relationship, bringing changes to the traditional view, based on the physical interaction and examination, direct contact between practitioner and patient, with greater patient participation.

However, these technologies of information, although considered indispensable nowadays, may entail various risks and harm to patients.

For these reasons, it is due to the law professionals study the necessary tools to ensure greater protection and safety to patients. It is not only the quality of the information published on the Internet, but the reliability in transmitting and storing the information provided, such as the protection of privacy, ensuring secrecy, confidentiality of the sensitive personal data of the patient, and the indispensability of informed consent. All in order to avoid the pecuniary or non-pecuniary damages.

Although there is no specific law or ethical standards concerning digital medical service in Brazil and even in the European Union.

In Brazil, the federal government seeking for the establishment of a standard regulation for the Internet, under civil, sent to the Congress on August 24, 2011, known as the Bill of Marco Civil Internet, which has been recently approved by the House of Representatives and Senate and sanctioned by President Dilma on April 23rd, 2014, by federal law nr. 12.965/2014, it will be made affective sixty (60) days after its official publication (on April 23rd, 2014). It establishes principles, guarantees, rights and duties for

the use of the Internet in the country, with emphasis to the provisions on custody record connection and access to Internet applications, which although not directly address medical services, but may assist (e.g. article 3, II, III, VII, 7, I, II, III, VIII, 10, 11).

Despite these efforts and recognizing the need for regulation of the matter, currently, interpreters of the law in Brazil makes use of the existing legal and ethical rules in Brazil, especially the Constitution, the Civil Code, the Code of Medical Ethics and Federal and Regional Medicine Council Resolutions, among other laws.

In Europe, without entering into a specific legal system, we find examples of rules that deal with the treatment of personal data protection in the European Union for better understanding the issue (conventions, directives). It is mentioned, for example, the Convention for Human Rights Protection and Fundamental Freedoms — ECHR (article 8); the Charter of Fundamental Rights of the European Union (articles 3, 7, 8); the Convention of the Council of Europe for the protection of individuals with regard to automatic processing of personal data, and the Directives of the European Parliament and of the Council. Among them we can mention Directive nr. 2011/24/EU on the application of patient's rights, in cross-border healthcare (art. 3d); Directive nr. 2000/31/EU on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce), Directive nr. 95/46/EU on the protection of personal data and on the free movement of these; Directive nr. 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communica-

country, with emphasis on the health sector (Directive on privacy and electronic record communications). And the Communication from the Commission to the European Parliament on the use of information and communications technologies in health care, but may assist medicine for the benefit of patients, healthcare systems and society — COM (2008) 689.

Recognizing that it is important to mention that the Directive currently, interpreted as such, was the subject of a comprehensive proposal, by the European Commission, in the context of the work of the Constitutional Treaty 2012, in order to strengthen online privacy and data protection, boost new digital technologies and prevent fragmentation of legal harmonies between national laws, regarding electronic data processing and their free movement within the EU.

COM 2012, 11 final (General Data Protection Regulation).

The breach of the duty of care and protection of personal data lead to the liability of all participants of this legal relationship, including physicians, health institutions, and Internet service providers, among others. The goal is to call the attention of participants in these new relations and legal relations to the protection of the life, health, psychophysical integrity of the individual, their human dignity in this new digital age, and the protection of the European Union.

The use of internet as a source of health information

The internet has often been used as a vehicle for disseminating information about issues related to health, sites which allow people to store and manage personal data and on electronic information, such as personal and family history, clinical data in the network as a kind of electronic record, allowing customized searches in the database in pages considered reliable.

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The increase of the search for health information through the Internet has been done by both medical professionals seeking to update their knowledge, improving themselves, and by patients seeking further information about a particular situation or illness. The curiosity of patients ranging from issues relating to nutrition, food problems, exercise for weight loss, alternative treatment, medical insurance, medical products and health information on prescription drugs, to subjects of sensitive diseases they would not like to talk about.

Among the advantages of the Internet use, it is outstanding: i) anonymous (although the problem of cookies, storing information about the preferences of a user based on the navigated pages), the right of access to sites with no identification, no monitoring of content, and the search for medical specialists or hospitals, and ii) easy and fast availability of information contributing to disease prevention and health promotion, encouraging the patient to the appropriated treatment, allowing a greater awareness, improving the dialogue between the doctor and the patient.

However, it has been being subject of concern among medical professionals, especially the more paternalistic, due to its substitution for a source of information on health issues on electronic resources available on the Internet. It may affect the doctor-patient relationship⁽²⁾.

The disadvantages may arise several factors, including: i) lack of Internet access by the population,

⁽²⁾ CARDOSO, José Eduardo Dias; COELHO, Augusto Quaresma; COELHO, Elisa Quaresma. Informações médicas na internet afetam a relação médico-paciente? Revista Bioética, v. 21, n. 1, 2013, p. 142-9.

behold, it is still a small portion of society who can use this media in public spots and with speed; iii) the difficulty of selecting the most appropriate sources of information, lack of education, health and digital user culture, the place of origin, the diversity of sources, the difficulty of verifying the quality; iv) the degree of control and review the information is submitted to, ultimately restrict users — patients, committing their freedom of choice; v) lack of standards, guidelines, uniform criteria in international placement of information; vi) quality of health information; vii) uncertainty about the credibility⁽³⁾⁽⁴⁾ of the source (regarding the provider ID in ecommerce deserves mention the articles 45A and 45B of the Bill of User Code updating nr. 281/2011, regulation the e-commerce), and viii) self-medication, adopting methods of treatment without proper guidance, where may occur misinterpretation of information and symptoms, etc.

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The quality of information includes its credibility, reliability and accuracy related to the seriousness of the authors and websites, besides the availability embodied in the ease of searching and browsing as well as the way they are presented to the public. There is serious difficulty or even impossibility of controlling sites, due to the lack of uniform international legal standards.

Health information should be based on good quality documentation as well as on relevant

and accurate bibliography. It can't be used as an economic and financial mechanism, as it often occurs for the misuse of large laboratories which take advantage of the internet for information on patients, either providing new treatments or manipulating data. This fact raises ethical questions about internet use in the collection of health information and it requests a multidisciplinary analysis.

But what would be the solution to these issues? Some studies have been suggesting as a way to be tracked, a closer cooperation among the medical societies, in order to better qualify scientific information in the Internet. The creation of ethical codes of conduct for suppliers of information and browsers, becomes prior, despite the problem of not having a universal code of ethics and the lack of universal legal bases to regularize health information disseminated in the websites.

Gema Revuella and Cristina Aced⁽⁵⁾ advocate the use of the accreditation systems, with the creation of quality standards, web pages accredited, committed to ethical principles, ensuring thereby the strictest reliability, despite the problems of reputation purchase.

According to a study conducted by Lydia Maria Nunes Ferreira⁽⁶⁾ there are already some initiatives to implement quality criteria for websites that deliver health information which aims to unify and standardize the quality of health information available

⁽³⁾ Internationally, one can cite the Directive nr. 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures, and aiming at security and trust in electronic communications, in ecommerce.

⁽⁴⁾ PACIOS, Marilena; CAMPOS, Carlos José Reis de; MARTHA, Amilton Souza; BARRA, Paulo Sérgio. Os sites da medicina e saúde frente aos princípios éticos da *Health on the Net Foundation* — *HON. Revista Bioética*. 2010, vol. 18, nº 2, p. 483-496

⁽⁵⁾ REVUELLA, Gema; ACED, Cristina. *Conflictos éticos de la comunicación médica en internet*. In: *Dilemas y acuerdos éticos en la comunicación médica*. Espanha: Thomson Reuters, 2010, p. 71-83.

⁽⁶⁾ FERREIRA, Lidia Maria Nunes Ferreira. *A internet como fonte de informação sobre saúde um levantamento de percepções dos médicos portugueses*. Dissertação submetida como requisito parcial para obtenção de grau de Mestre em Gestão dos Serviços de Saúde Orientador Prof. Doutor Paulo Moreira, 2006.

on the internet, as well as guide the user or health care professional on reliable health information, with emphasis on: i) HON Foundation ⁽⁷⁾, founded in 1995 in Switzerland, which created in 1996 a code of conduct called Foundation health on the Net Code of Conduct (HON code); ii) Netscoring; iii) URAC (2006); iv) DISCERN established between 1996 and 1997 by the British Library and the NHS Executive Anglia Oxford Research and Development Program, together with the Division Public Health and Primary Care, University of Oxford; v) the Healthcare Coalition, non-profit organization (1997), having created the eHealth code of Ethics, code of Conduct for websites and health services in the Internet, in 2000, in Washington DC, USA, which was adopted by the Internet Healthcare Coalition; vi) the MIC, instrument based on “a structured system of self — certification with external reference”; vii) eEurope 2002 HSWG (1998), Internet Quality Information Checklist (QUICK) (2000), an instrument supported by the Health Development Agency and Centre for Health Information Quality UK ; viii) Organising Medical Networked Information (OMNI), founded in 1995 to provide a searchable database of filtered and accredited information; ix) guidelines for the American Medical Association (AMA) Websites, which aims to promote the improvement of medicine and public health in the United State of America, and in February 2000 adopted guidelines for medical and health information from the Internet and established four

principles of quality standards for content, advertising, sponsorship, privacy and electronic commerce.

Thus, it becomes of great importance from the part of suppliers, responsible for serving the health information on the Internet, and that should have commitment to the final user, the consumer. They must observe the highest ethical and legal transparency, honesty, good faith and privacy.

Failure to comply with these principles and assumptions of good conduct may lead to liability of individuals or entities that deliver information, such as content providers, service providers, and network providers. It is considered as content providers authors, publishers or other copyright holders who introduce their work on the net and are subject to protection, together with software companies, the rules concerning copyright; service providers, identified with both ISPs, who hire and provide the means to access the Internet, as well as service providers and content offering in the Internet environment contents to be accessed or services to be vehiculated through the Internet or from this, developing and concluding the service outside the computer network, offering product or service fulfillment. Finally, network provider, those who provide the physical infrastructure access, ie, the lines of communication which allow connection to the Internet, such as telephone companies or cable company services ⁽⁸⁾.

Once the matter involves the medical science, it will be due to the Federal and Regional Medical

⁽⁷⁾ BARRA, Paulo Sérgio Calvacante; MARTHA, Amilton Souza; CAMPOS, Carlos José Reis de; PACIOS, Marilena. Os sites de medicina e saúde frente aos princípios éticos da *Health on Net Foundation* — HON. *Revista Bioética*, v. 18, n. 2, 2010, p. 483-496.

⁽⁸⁾ MIRAGEM, Bruno. Responsabilidade por danos na sociedade de informação e proteção do consumidor: desafios atuais da regulação jurídica da Internet. *Revista do Direito do Consumidor*, ano 18, n. 70, abr.-jun., 2009, p. 49.

MARTINS, Guilherme Magalhães. *Responsabilidade civil por acidentes de consumo na internet*. São Paulo: Revista dos Tribunais, 2008, p. 359.

Councils, based upon the Law nr. 3.268/57 and Act nr. 44.045/58, the role of defending the own medicine and its ethical exercise by professional ruling norms.

In Brazil, the Regional Council of Medicine of São Paulo (CREMESP) was concerned with the issue of health information transmitted on the Internet and edited the Resolution nr. 97, from March 9th, 2001, which established the Ethics Handbook for sites of medicine and health in the Internet.

Recently, in 2009, they altered, by the Resolution nr. 206 by CREMESP, the Resolution nr. 175/2008 by CREMESP, which rules information security policy and access to resources for information technology, through user registration mechanisms, use of personal passwords and non-transferable, encrypted, use of electronic signatures, record accesses performed by users, among other measurements.

According to the Resolution nr. 97 /2001 by CREMESP the internet user, concerning online health services or products have the right to require the organizations and those responsible for the websites: i) transparency of the information provided on the site, with the identification of those responsible, and direct and indirect sponsors of the site; ii) honesty, not hiding the economic and financial interests, it should be clear when the educational content has disclosed or scientific purpose of advertising, promotion and sales, interest from sponsors, companies products, equipment, pharmaceuticals; iii) quality of information, which must be accurate, up to date, easy to understand language objectively and scientifically grounded; iv) express informed consent of users to file, use or disclosure

of any personal data, they should know the potential risks to information privacy; v) personal health privacy; vi) medical ethics, compliance with ethical professional practice regulatory standards, and vii) legal and ethical responsibility for the information, Medicine and Health products and services related to the web (article 1).

The inobservance of ethical and juridical principles of transparency, honesty, good faith, privacy, among others, which meet constitutional and infraconstitutional prediction (articles 5th, X, XIV, by Federal Constitution/88, articles 4th, 6th, 8th, unique paragraph, 9th, 10th, 30th, 31st, 36th, 46th, 51st, IV, 52nd, 54th, paragraph 4th, all by Consumer Defense Code — CDC, article 21st, 113th, 422nd by Civil Code) and good behavior purposes may cause the civil liability of individuals or corporations that vehiculate the information such as the providers. ⁽⁹⁾ (articles 186th, 187th, 927th by CC and articles 12th, 14th by CDC) ⁽¹⁰⁾.

On the other hand, users should seek the accredited sites which observe the quality standards for content, advertising, sponsorship, privacy and electronic commerce.

⁽⁹⁾ Directive nr. 85/374/CEE by Council, from July 25th. 1985, concerning the approach of the legal, regulatory and administrative dispositions of Member-states, in matter of liability upon defective products.

⁽¹⁰⁾ "Although the backbone, access, content, hosting and e-mail providing services are interlinked among them (in such a way that activities as the electronic mail service or content provision are supposed to provide access to the internet, which is due to the access provider), each of them responding for the damage attributed to their own activity, having as parameter not only the duties expressly assumed in the contract, but also the lateral duties, annexes or instruments of behaviour, based upon the principle of objective good Faith (Civil Code, articles 113th, 421st), which may state the good accomplishment of the duty" MARTINS, Guilherme Magalães. *Responsabilidade civil por acidentes de consumo na internet*. São Paulo: Revista dos Tribunais, 2008. p. 359.

II. Online medical practice and therapy (telemedicine)

The telecommunications united to computers gave rise to telematics, which in health is characterized by the joint application of these two media to health activities, overcoming barriers of geographical distances to promotion, prevention and cure individual or collective that allows the exchange among health professionals and between their patients and them. Telematics was divided into two groups: telehealth and telemedicine ⁽¹¹⁾.

The telehealth comprises all the actions of remote medicine, aimed at the community concerning public health policies and dissemination of knowledge and covers education and data collection of certain groups and populations isolated by distance as well as the improvement of health professionals that can stay in touch with new techniques, diagnosis and innovative treatments for better targeting of preventive medicine. Besides that, frequent updating statistical data and national and regional health policies as well as epidemic control. The most commonly used procedures for telehealth networks are teledidactics; social telephony; communities, virtual libraries and videoconferences.

Telemedicine ⁽¹²⁾, which will be the subject of this study, encompasses the entire distance medical

practice focused on the treatment and diagnosis of individual patients (identified or identifiable), using conventional telephony and the Internet, enabling professionals to discuss health issues, publish scientific articles, video conferencing, access to virtual libraries, treat patients, send scans for analysis by other professionals, exchange information with other physicians, provider vocational training ⁽¹³⁾.

The procedures of telemedicine can be classified into various types, such as: i) teleconsultation; ii) the telecare; iii) the teleservice; iv) telepathology; v) to teleradiology; vi) telemonitoring (homecare); vii) telediagnosis; viii) the teleconference; ix) telesurgery, and x) teletherapy.

Several benefits brought by medicine: i) the reduction of time and transportation costs of patients, shortening distances; ii) the interaction among professionals, making it possible to have expertise accessible to any patient without limitations of space or time; iii) the dehospitalization (discharge of patients from hospitals); iv) management of health resources; v) decentralization of health assistance; vi) meeting in remote locations; vii) the opportunity of access to medical specialists; viii) the transmission of images and test results to evaluate the distance, especially in the radiology, pathology, cardiology, neurology areas, and ix) greater possibility of technical developments for the healthcare provider that leverages available equipment, information, and ease of obtaining a second opinion

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⁽¹¹⁾ SCHAEFER, Fernanda. *Proteção de dados de saúde na sociedade de informação: a busca pelo equilíbrio entre privacidade e interesse social*. Curitiba: Juruá, 2010, p. 82-83.

⁽¹²⁾ Based upon Communication from the Commission to the European Parliament about on telemedicine for the benefit of patients, healthcare systems and society COM (2008) 689, telemedicine is "the provision of healthcare services, through the use of ICT, in situations where the health professional and the patient (or two health professionals) are not in the same location. It involves secure trans-

mission of medical data and information, through text, sound, images or other forms needed for the prevention, diagnosis, treatment and follow-up of patients."

⁽¹³⁾ FRANÇA, Genival Veloso de. Telemedicina: breves considerações ético-legais. *Revista Bioética*. Vol. 8, n. 1, p. 107-125.

in cases of emergency (equipment, communication infrastructure).

On the other hand, telemedicine is the subject of several debates and has been guided by some instruments such as the Declaration of Tel Aviv on Accountability and Ethical Standards in the use of telemedicine, signed in 1999 by the General Assembly of the World Medical Association, featuring on the principles of doctor-patient relationship in telemedicine; the good Practice Guide for publishing medical services on the Internet of the Committee of European Doctors and Recommendations of the German Society for medical Law relating to legal aspects of telemedicine.

Among the disadvantages, we can mention: i) the difficulty in getting a correct diagnosis; ii) virtual relation doctor-patient; iii) poor communication which may influence in the accuracy of the diagnosis; iv) attendance by non-qualified people or false doctors; v) technology high cost; vi) The secrecy of electronic information; vii) difficulty in encrypted data; viii) access of medical health care for unauthorized people, and ix) higher interpretation mistakes of data and image.

In Brazil, telemedicine is governed by rules of an ethical nature issued by the Federal Council of Medicine (CFM), with normative force, although not considered law, in the strict sense.

The remote medical consultation performed through any kind of media, including the Internet, with the use of e-mails, web interactivity forms ⁽¹⁴⁾,

⁽¹⁴⁾ It is usual the existence of sites where people relate their health cases and doctors answer the questions. The Federal Medicine Council had already had

blogs, according to the interpretation of article 37 and 114, both by Medical Ethic Code (CEM) ⁽¹⁵⁾ and article 1st, item IV, Act nr. 4.113 of February 14th, 1942, are forbidden, except in some hypothesis, should telemedicine or any other method be ruled by the Federal Medicine Council.

The use of telemedicine concerning patient assistance is met, in Brazil, nowadays, ruled by Resolution nr. 1.643/2002 of the Federal Council of Medicine — CFM, and the use of teleradiology by Resolution nr. 1.890/2009 CFM, which disciplines electronic transmission of radiological images in order to query or report.

In European Union there is not any specific Directive about telemedicine, but can be considered: the COM (2008) 689, the Directive nr. 2011/24/EU (article 3d), on the application of patient's right, in cross-border healthcare; the Directive nr. 2000/31/EU, on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce), and the Directive nr. 95/46/EU on the protection of individuals with regard to the processing of personal data and on the free movement of such data — COM 2012/11.

The telemedicine finds limited application and should only occur in cases of real need such as: i)

the opportunity of pronouncing about, considering such practices illegal, in accordance with Consulting-lawsuit nr 4.722/2000 by CFM, NPC/CFM/Nº 38/2002.

⁽¹⁵⁾ The doctor is forbidden to: Article 37. Prescribe treatment or other procedures without direct exam of the patient, except in urgency or emergency cases and impossibility of accomplishing it, making it prior to due it just after the impediment. Unique paragraph: The remote medical attendance, according to telemedicine or any other method, must be held under the regulation of Federal Medicine Council.

when the physician needs the opinion or advice of another colleague; ii) you have permission from the patient; iii) occur for any queries, and for that there might be a prior relationship between the doctor and the patient, or the doctor has an adequate, clear and justified knowledge about the presented issue, and iv) situations where the physician cannot be physically present in reasonable time and safe, or in emergency cases and urgent. The restriction is justified because the information are generally insufficient compromising the diagnosis and treatment.

Other health professionals, besides doctors, also make use of communication technology means and information such as computer mediations with Internet access, television sets, telephone sets, conjugated or hybrid, or any other mean of interaction as the psychologists, who perform remote services.

Recently, the Federal Psychology Council published the Resolution nr. 011/2012, which rules psychological services accomplished by remote communication technological means, the psychotherapeutic attendance, experimentally.

The Federal Nutrition Council (CFN) prohibited expressly in the Ethical Code (Resolution nr. 334/2004, chapter VII, and article 7th, XVII), the accomplishment of consults and nutrition diagnosis, and diet prescription through the Internet or any other communication means.

The remote medical consultations conducted by any means of communication, which includes the Internet, using e-mails, forms of interactivity to websites, blogs, according to the interpretation of Article 37 and 114, both from the Medical Ethics — CEM and article 1st, item IV of Decree — Law nr. 4,113 of February 14, 1942, are prohibited,

except in some cases, and the telemedicine or other methods must be regulated by the Federal Council of Medicine.

The use of the Internet for these services require authorization by the patient, through informed consent (article 22 of the CEM) ⁽¹⁶⁾ for the electronic transmission of images and clinical data, which accompany the exams, fitting to professionals custody confidentiality, privacy and confidentiality of patient data, must have strict safety standards to ensure the patient's rights

And it can lead to joint and severe liability of the patient's medical expert who carried out the examination and issued the report.

The practice of telemedicine should occur safely, using appropriate technological infrastructure, following the rules of guardianship, handling, data transmission, directly related to the protection of the rights of the patient, answering the patient's doctor and others involved in solidarity.

III. Exams and medical records forwarded and circulated through the Internet

Information about patients' clinical data can move through the various internet forms, sometimes through access to medical records, sending medical examinations, such as images, X-ray, blood and urine exam results, to aware patients or other health professionals, either for storage of such information, among others.

⁽¹⁶⁾ The doctor is forbidden to: Article 22. Not obtaining the patient or their legal representative informed consent after clarifying about the procedure to be done, except in case of imminent risk of death.

This practice is not forbidden, but it must be carried out with caution, in order to avoid the breach of secrecy and privacy of such information. For that, some rules must be followed as data guidance with high technical caution. Concerning the access to secret areas, which may contain personal data, it is important to use passwords, login, cryptographic mechanisms, electronic signature, service providers who strain the access by others, and in a third phase, the use of biometrical data.

With advances in information technology, new methods of data storage and transmission emerged, including patient data, medical records, allowing the latter to be drawn through electronic medical records.

In Brazil, the medical records are defined by the Resolution nr. 1.638/2002 as “a unique document formed by a set of information, recorded images and signs, coming from facts, happenings and situations about the patient health and the due assistance, of legal, secret and scientific nature, which may allow the communication among the members of the multiprofessional team involved and the continuity of the individual assistance.”

The electronic medical records are ruled by Resolution nr. 1638/2002 by CFM and Resolution nr. 1.821/2007 by CFM, concerning the use of scanning and computerized systems for the storage and handling of documents from patient charts.

The data contained in the medical records are those belonging to the patient, who must have full access of the clinical data (article 88th by CEM ⁽¹⁷⁾)

⁽¹⁷⁾ The doctor is forbidden to: Article 89. Release copies of medical records under their guard, except when authorized, by written, by the patient, in order to attend to judicial order or their own defence. Paragraph 1^o When legally

as well as the rectification (article 5th, LXXII and Law nr. 9.507/97 — *habeas data* ⁽¹⁸⁾, articles 43th e 44th by CDC), being restricted forms of disclosure and access to others. And even if the records are in paper form or in electronic media are ensured concerning the confidentiality and patient privacy.

The patient has the right to their medical records are treated confidentially, with complete secrecy about their conditions, their personal data deemed sensitive, alternative treatment, which does not cease even if the fact is public knowledge or after his death.

Alongside this right to confidentiality, has the doctor and companies providing medical care, the duty of secrecy about the facts of which had science due to their professional activity, the personal data of the patient, the results of tests performed with therapeutic purpose, diagnostic or prognostic information in the medical record, file or medical record, the duty to refrain from abuses. All due to the fact that doctor-patient relationship is founded on trust, mutual respect, discretion and reserve.

Similarly, it is important to outstand that the patients who access their clinical records through the Internet, must be careful about the handling of data by non-authorized people.

requested, the medical records will be available to the doctor surveyor named by the judge. Paragraph 2nd When the register is presented in their own defence, the doctor may request that the professional secrecy be observed.

⁽¹⁸⁾ The protection of the person facing the treatment of their informatized personal data, as well stated by J. J. Gomes Canotilho and Vital Moreira when commenting the article 35th of Portuguese Republic Constitution, comprehends not only the individualization, fixing and data collection, but also their connection broadcasting, utilization and publication. MOREIRA, Vital; CANOTILHO, J.J. Gomes. *Constituição da República Portuguesa Anotada*: arts. 1^o a 107^o. V. 1, 4 ed. rev. Coimbra: Coimbra Editora, 2007, p. 550-558.

In Brazil, the Code of Medical Ethics (CEM) is expressed by requiring that professional secrecy is the medical record, being forbidden to reveal the fact that the doctor has knowledge in the exercise of their profession (articles 73-76), access to medical records by persons not required to confidentiality (article 85) especially in the case of insurance companies in the event of circumstances surrounding the death of patient under their care (article 77).

For these reasons, the medical professional is forbidden to release copies of records that are under their care, unless: i) authorized in writing by the patient or his legal representative; ii) to attend court order; iii) to his own defense; iv) the legal duty or cause; v) if the approval of the Regional Council of Medicine of jurisdiction. All in accordance with article 89 of CEM and Resolution nr. 1605/2002 of CFM.

The inobservance of the professional duty of secrecy is so important that is considered a crime of secrecy inviolability, according to the Brazilian Penal Code (CPB), article 154 (articles 153 and 325), except in the cases of Compulsory diseases, considered crime when not released (article 269 CPB, article 66 Act nr. 3.688/1944).

This right of protection of the medical data circulating in the web, derives from the principle of human dignity, the foundation of the Federative Republic of Brazil (article 1, III, of the Constitution), the protection of honor, image and privacy giving the patient the fundamental right to privacy, article 5, section X of the Federal Constitution, art. 21 of the Civil Code. And, worldwide, it is assured by the Convention for Human Rights and Fundamental Liberty, the Charter of Fundamental Rights of European Union, the Convention of Human

Rights and Biomedicine, the Directive nr. 95/46/EU, on the protection of individuals with regard to the processing of personal data and on the free movement of such data — COM 2012/11, as well as the Directive nr. 2002/58/EC of the European Parliament and of the Council of 12 July 2002, concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications).

Thus, must the stakeholders of this new doctor-patient relationship assure that the use of Internet for exams sending, medical prescriptions, access to electronic medical records occur in a safe way and with the patient's informed consent under the penalty of exposing intimacy of the patient, affecting his privacy and violating the medical secrecy.

Conclusion

The Cybernetic Revolution in the health area, instantaneity of communication through the web made feasible a different interaction among people, which has been changing gradually the physical presence for the virtual. It reflects the social relationships, affecting even the doctor-patient relation, and the way they may be ruled, in order to better safeguard human person.

The use of Internet demand responses that the Civil Law and the legislative technique by themselves are not capable to regulate. The specificity of the matter overdoes the juridical knowledge, thus the need to search for some answers in several sciences, in specialized areas such as Medicine, Informatics and compared Law.

The medical services provided by the Internet amplifies the health knowledge, allowing professional improvements, development of new techniques, treatments, wider access to healing mechanisms and extending life. Furthermore, it reduces the geographical barriers, which eases the exchange of information among specialized professionals and increases patient awareness. In another hand, it may jeopardized the intimacy, the secrecy of sensitive data of patients, which circulate in the web without appropriate protection.

The web consumption relations have some peculiarities due to the lack of contact between the medical professional and the patient, making it difficult the investigation of aptness, product honesty, service provider and vice-versa. Moreover, the existence of great difficulty in controlling some information in the computers, once it increases the possibility of inappropriate information of patient clinical data, there is the possibility of the weakest segment being manipulated by demining interests, privileged groups, which imposes more protection to consumer user.

In order to avoid damages, irreparable to web's patient and civil liability, it is necessary a greater care from the part of health care professionals and health institutions, the providers, who must guarantee: i) the veracity of the vehiculated information, data safety; ii) transparency; iii) reliability; iv) good faith; v) loyalty; vi) obtainment of free consent from patients, which translates their right to self-determination, and legitimates the act; vii) protection of data using certified sites, and viii) use of password control mechanisms and access.

The main task of the law applicators, facing this legislative lack, is to extract from the axiological constitution framework, from deontological rules and International Conventions and Treaties, the protection in physical and electronic clinical data of the patient's, preserving their right of free development and dignity.

Bibliographical notes

- ALMEIDA JUNIOR, Vitor de Azevedo. A imagem fora do contexto: o uso de imagens de arquivo. In: SCHREIBER, Anderson (coord.). *Direito e Mídia*. São Paulo: Saraiva, 2013.
- ALMEIDA FILHO, Flávio Guilherme Vaz; SALVADOR, Valéria Fari-nazzo Martins. *Aspectos éticos e de segurança do prontuário eletrônico do paciente*. II Jornada do Conhecimento e da Tecnologia, UNIVEM; Marília, SP.
- ARAÚJO, Arakén Almeida.; BRITO, Ana Maria de; NOVAES, Moacir de. Saúde e autonomia: novos conceitos são neces-sários? *Revista Bioética*, v. 16, n. 1, 2008. pp. 117-123.
- ARRUDA, Mauro J. G. e ARAGÃO, Claus Nogueira. *Os problemas da publicidade de medicamentos*. Available: <<http://www.conjur.com.br/2009-fev-14/norma-anvisa-publicidade-medicamentos-onerar-empresas>> Access in: 10 jun. 2013
- BARRA, Paulo Sérgio Calvacante; MARTHA, Amilton Souza; CAMPOS, Carlos José Reis de; PACIOS, Marilena. Os sites de medicina e saúde frente aos princípios éticos da Health on Net Foundation — HON. *Revista Bioética*, v. 18, n. 2, 2010, pp. 483-96
- BARBOSA, Fernanda Nunes. *Informação: direito e dever nas relações de consumo*. São Paulo: Revista dos Tribunais, 2008.
- BARBOSA, Fernanda Nunes. Internet e consumo: o paradigma da solidariedade e seus reflexos na responsabilidade civil do provedor de pesquisa. *Revista dos Tribunais*. n. 924, v. 101, 2012. pp. 535-561.
- BARBOSA, P.R.B. Informática médica e telemedicina. *Anais da Academia Nacional de Medicina*, São Paulo, v. 160, no 2, jul./dez. 2000, pp. 121-123.
- BARBOZA, Heloisa Helena, SIQUEIRA-BATISTA, Rodrigo. Diálogo entre bioética e o direito. In: LANA, Roberto Lauro,

- FIGUEIREDO, Antônio Macena de. *Direito Médico*. Rio de Janeiro: Editora Lumen Juris, 2009.
- BINICHESKI, Paulo Roberto. *Responsabilidade civil dos provedores de internet: direito comparado e perspectivas de regulamentação no direito brasileiro*. Curitiba: Juruá, 2011.
- CAMBI, E. O caráter universal do direito moderno e os fundamentais impostos pelo biodireito. In: CORRÊA, E.A.A.; GIACOLA, G.; CONRADO, M. (Coords.). *Biodireito e dignidade da pessoa humana*. Curitiba: Juruá, 2007, pp. 49-78.
- CARDOSO, José Eduardo Dias; COELHO, Augusto Quaresma; COELHO, Elisa Quaresma. Informações médicas na internet afetam a relação médico-paciente? *Revista Bioética*, v. 21, n. 1, 2013, pp. 142-9.
- CENEVIVA, Walter. *Segredos profissionais*. São Paulo: Malheiros, 1996.
- COSTA, André Brandão Nery. Direito ao esquecimento na Internet: a *scarlet letter digital*. In: SCHREIBER, Anderson. *Direito e Mídia*. São Paulo: Saraiva, 2013. pp. 184-206.
- COHEN, C. *A confidencialidade: questões éticas relativas ao segredo profissional*. In: SEGRE, M; (Orgs.). *Bioética*. 3a ed. rev. e amp. São Paulo: EDIUSP, 2002.
- COLTRI, Marcos, DANTAS, Eduardo. *Comentários ao Código de Ética Médica: Resolução CFM n.º 1.913, de 17 de setembro de 2009*. Rio de Janeiro: GZ Ed., 2010.
- CUNHA, Luísa; PATRÍCIO, Zuleica Maria. Confidencialidade e privacidade em planos de saúde. *Revista Bioética*, v. 16, n. 1, 2008, pp. 141-54.
- DONEDA, Danilo. Iguais mas separados: o Habeas Data no ordenamento jurídico brasileiro e a proteção de dados pessoais. *Cadernos da Escola de Direito e Relações Internacionais (Unibrasil)*, v. 9, pp. 14-32, 2009.
- DINIZ, Maria Helena. *O estado atual do biodireito*. 5. ed. rev. aum. e atual. São Paulo: Saraiva, 2008.
- DONEDA, Danilo. *Da privacidade à proteção de dados pessoais*. Rio de Janeiro: Renovar, 2006.
- EL KHOURI, S.G. *Telemedicina: análise de sua evolução no Brasil*. Dissertação de Mestrado apresentada à Faculdade de Medicina da USP. São Paulo, 2003.
- FADDA, Stefano. La tutela dei dati personali. in: CASSANO, Giuseppe. *Commercio elettronico e tutela del consumatore*. Milano: Giuffrè, 2004.
- FERREIRA, José Henrique da Costa. *Telemedicina: dos conceitos à prática*. Tese Dissertação de mestrado em Gestão da Informação nas Organizações, especialização em Métodos Científicos de Gestão pela Faculdade de Economia da Universidade de Coimbra, 2002. Coimbra: FEUC, 2002.
- FERREIRA, Lídia Maria Nunes Ferreira. *A internet como fonte de informação sobre saúde um levantamento de percepções dos médicos portugueses*. Dissertação submetida como requisito parcial para obtenção de grau de Mestre em Gestão dos Serviços de Saúde Orientador: Prof. Doutor Paulo Moreira, 2006.
- FRANÇA, Genival Veloso da. Telemedicina: breves considerações ético-legais. *Bioética*, v. 8, n. 1, jan./jun. 2000, pp. 107-126.
- _____. *Direito médico*. 11. ed., rev. atual. e ampl. Rio de Janeiro: Forense, 2013.
- _____. *Comentários ao código de ética médica*. 6. ed. Rio de Janeiro: Guanabara Koogan, 2010.
- FURTADO, Gabriel Rocha. O marco civil da internet: a construção da cidadania virtual. In: SCHEIREBER, Anderson. *Direito e Mídia*. São Paulo: Saraiva, 2013, pp. 236-254.
- GONÇALVES, Antonio Baptista. Intimidade, vida privada, honra, e imagem ante as redes sociais e a relação com a internet. Limites constitucionais e processuais. *Revista de Direito Privado*. Ano 12, v. 48, out./dez. 2011, pp. 299-340.
- GUERRA, A. *Telecomunicações e proteção de dados*. In: Instituto Jurídico da Comunicação. As telecomunicações e o direito na sociedade da informação. Coimbra, Portugal: Faculdade de Direito da Universidade de Coimbra, 1999. pp. 107-121.
- LANDGREEN, Ian R. "Do no harm": a comparative analysis of legal barriers to corporate clinical telemedicine providers in the United States, Australia, and Canada. *Georgia Journal of International and Comparative Law*, v. 30, n. 2, pp. 365-390, Winter 2002.
- LEONARDI, Marcel. Responsabilidade civil pela violação do sigilo e privacidade na internet. In SILVA, Regina Beatriz Tavares da. SANTOS, Manoel J. Pereira dos (Coord.). *Responsabilidade Civil: responsabilidade civil na Internet e nos demais meios de comunicação*. São Paulo: Saraiva, 2007, pp. 341-357.

- LIMA, Rogério Montai de. Relações de consumo via internet: regulamentação. *Revista IOB de Direito Civil e Processual Civil*, ano IX, n. 57, ja.-fev. 2009, pp. 38-50.
- LOPES, Paulo Robert de Lima; PISA, Ivan Torre; SIGULEM, Daniel. Desafios em telemedicina. *Parcerias estratégicas*, n. 20, pp. 367-386, jun. 2005.
- LEONARDI, Marcel. Responsabilidade civil pela violação do sigilo e privacidade na Internet. In: SILVA, Regina Beatriz Tavares da; SANTOS, Manoel J. Pereira dos (coord.). *Responsabilidade civil na Internet e nos demais meios de comunicação*. São Paulo: Saraiva, 2007.
- LEVEILLE, Suzanne G et al. *Evaluating the impact of patients' online access to doctors' visit notes: designing and executing*. BMC Medical Informatics and Decision Making 2012, 12:32 Available: <<http://www.biomedcentral.com/1472-6947/12/32>>
- MARTINS, Guilherme Magalhães. Confiança e aparência nos contratos eletrônicos de consumo via internet. In: *Doutrinas Essenciais de Responsabilidade Civil*, vol. 8, São Paulo: Revista dos Tribunais, 2011.
- . *Formação dos contratos eletrônicos de consumo via internet*. 2. ed., Rio de Janeiro: Lumen Juris, 2010.
- . *Responsabilidade civil por acidentes de consumo na internet*. São Paulo: Revista dos Tribunais, 2008.
- . LONGHI, João Victor Rozatti. A tutela do consumidor nas redes sociais virtuais: responsabilidade civil por acidentes de consumo na sociedade da informação. *Revista de Direito do Consumidor*, ano 20, vol. 78, São Paulo: Revista dos Tribunais, abr./jun., 2011, pp. 191-221
- MORENO, Megan A et al. *Internet safety education for youth: stakeholder perspectives*. BMC Public Health 2013, 13:543. Available: <<http://www.biomedcentral.com/1471-2458/13/543>>
- MARTINS, Sandra Ivone Barreiro; SIMÕES, José Augusto. Aspectos Éticos na Monitorização Remota de Pacemakers através da Telemedicina. *Revista Portuguesa de Bioética*, n. 16, mar. 2012.
- MARTINS, Paulo Sergio da Costa. Código de Ética Médica e processos éticos profissionais. In: NIGRE, André Luis et al. *Direito e medicina, um estudo interdisciplinar*. Rio de Janeiro: Lumen Juris, 2007, pp. 61-84.
- MARTINS, Sandra Ivone Barreiro; SIMÕES, José Augusto. Aspectos Éticos na Monitorização Remota de Pacemakers através da Telemedicina. *Revista Portuguesa de Bioética*, n. 16, mar. 2012.
- MASSUD, Munit. Conflito de interesses entre os médicos e a indústria farmacêutica. *Revista Bioética*, n. 1, v. 18, 2010, pp. 75-91
- MIRAGEM, Bruno. *Curso de direito do consumidor*. 3. ed., rev., atual. e ampli., São Paulo: Revista dos Tribunais, 2012.
- . Responsabilidade por danos na sociedade de informação e proteção do consumidor: desafios atuais da regulação jurídica da Internet. *Revista do Direito do Consumidor*, ano 18, n. 70, abr.-jun., 2009, pp. 41-92.
- MENDES, Nelson Figueiredo. Responsabilidade ética, civil e penal do médico. São Paulo: Sarvier, 2006.
- MODENESI, Pedro. Comércio eletrônico e a tutela do ciberconsumidor. *Revista Trimestral de Direito Civil*, ano 12, v. 48, out./dez., 2011.
- NEMETZ, Luiz Carlos e Aline Dalmarco (coord.). *Estudos e pareceres de direito médico e da saúde*. Florianópolis: Conceito Editorial, 2008.
- MUNIZ, Gilmar Ribeiro. Utilização do sistema de telessaúde no comando da aeronáutica — uma necessidade. *Idéias em destaque*, n. 34, pp. 74-93, set./dez. 2010.
- OLIVEIRA, Guilherme. Auto-regulação profissional dos médicos. In *Temas de Direito da Medicina*. 2 ed. Coimbra: Coimbra Editora, 2005, pp. 247-261.
- ORCHARD, Margo C, et al. BMC Medical Informatics and Decision Making 2009, 9:38. Available <<http://www.biomedcentral.com/1472-6947/9/38>>
- PACIOS, Marilena; CAMPOS, Carlos José Reis de; MARTHA, Amilton Souza; BARRA, Paulo Sérgio. Os sites da medicina e saúde frente aos princípios éticos da Health on the Net Foundation — HON. *Revista Bioética*, 2010, vol. 18, n.º 2, pp. 483-496.
- PASZAT, Lawrence, et al. *Access to electronic health records by care setting and provider type: perceptions of cancer care providers in Ontario, Canada*. BMC Medical Informatics and Decision Making 2009, 9:38. Available: <<http://www.biomedcentral.com/1472-6947/9/38>>
- PEREIRA, André Gonçalo Dias. *O consentimento informado na relação médico-paciente*. Estudo de Direito Civil, 9, Faculdade

- de Direito da Universidade de Coimbra, Centro de Direito Biomédico, Coimbra: Coimbra Editora, 2004, pp. 551-552.
- PEREIRA, Paula Moura Francesconi de Lemos. *Relação médico-paciente: o respeito à autonomia do paciente e a responsabilidade civil do médico pelo dever de informar*. 1. ed. Rio de Janeiro: Lumen Juris, 2011.
- PINHEIRO, Antônio Gonçalves. O ato médico e os conselhos de medicina: considerações históricas, práticas e administrativas. In: NIGRE, André Luis et al. *Direito e medicina, um estudo interdisciplinar*. Rio de Janeiro: Lumen Juris, 2007, pp. 37-60.
- _____. Publicidade e ética. *Bioética*, n. 12, 2004, pp. 169-176.
- RODRIGUES, Maria Andréia Formico, MAIA, José Gilvan Rodrigues, MENDONÇA, Nabor das Chagas. *Simulação de Procedimentos Médicos Usando Java e tecnologia na Web*. Available in: <<http://www.lbd.dcc.ufmg.br/colecoes/wim/2002/0010.pdf>> Access 10 de jun. 2013.
- SANTOS, Alaneir de Fátima dos [et al.] organizadores. *Telessaúde: um instrumento de suporte assistencial e educação permanente*. Belo Horizonte: Ed. UFMG, 2006.
- SALLES, Alvaro Angelo. Transformações na relação médico-paciente na era da informação. *Revista Bioética*, v. 18, n. 1, 2010, p. 49-60.
- SCHAEFER, Fernanda. *Procedimentos médicos realizados a distância e o Código de Defesa do Consumidor*. Curitiba: Juruá, 2009.
- _____. *Proteção de Dados de Saúde na Sociedade de Informação: a busca pelo equilíbrio entre privacidade e interesse social*. Curitiba: Juruá, 2010.
- SEABRA, A.L.R. *Telemedicina*. Available in <<http://www.lava.med.br/livro>>, 2001. Access in nov. 2002.
- SIGUEM, D. *Telemedicina: uma nova forma de assistência em saúde*. Available <<http://www.cibersaude.com.br>>. Access in 29 out. 2002.
- _____. *Introdução à informática em saúde: um novo paradigma de aprendizagem na prática médica da UNIFESP/EPM*. São Paulo: UNIFESP/EPM, 1997.
- SIQUEIRA, J.E. Tecnologia e Medicina entre encontros e desencontros. *Revista de Bioética*, Brasília: Conselho Federal de Medicina, 2000, v. 8, no 01, pp. 55-61.
- STELLA, R. *Médico virtual*. Available <http://www.usp.br/jorusp/arquivo/2000/jusp531/manchet/rep_res/rep_int/pesqui3.html> Access in jul. 2003.
- REVUELLA, Gema, ACED, Cristina. Conflictos éticos de la comunicación médica en internet. In *Dilemas y acuerdos éticos en la comunicación médica*. Espanha: Thomson Reuters, 2010, pp. 71-83.
- RODOTÀ, Stefano. A identidade em tempo de google. Available: <<http://www.ihu.unisinos.br/noticias/noticias-arquivadas/28397-a-identidade-em-tempos-de-google>> Access in: 10 jun. 2013.
- _____. *La vita e le regole: Tra diritto e non diritto*. Milano: Feltrinelli, 2006.
- _____. Transformações do corpo. *Revista trimestral de direito civil — RTDC*, v. 5, n. 19, p. 65-107, jul./set. 2004.
- _____. *A vida na sociedade da vigilância: a privacidade hoje*. organização, seleção e apresentação de: Maria Celina Bodin de Moraes; tradução: Danilo Doneda e Luciana Cabral Doneda. Rio de Janeiro: Renovar, 2008.
- SALLES, Alvaro Angelo. Transformações na relação médico-paciente na era da informação. *Revista Bioética*, v. 18, n. 1, 2010, p. 49-60.
- SCHARAMM, Fermin Roland (Org.) et al. *Bioética, riscos e proteção*. Rio de Janeiro: UFRJ, 2005
- TABORDA, José G. V; BINS, Helena Dias de Castro. Ética em psiquiatria forense: antigos dilemas, novos desafios. *Revista Bioética*, v. 17, n. 2, pp. 191-201 2009.
- TADEU, Silney Alves. A responsabilidade pela informação repassada a terceiros: comparações com o Código de Defesa do Consumidor. *Revista Bioética*, v. 15, n. 2, 2007, pp. 186-95
- TELEMEDICINA tem aplicações de interesse para o Brasil. Available <<http://www.comciencia.br>>. Access in 06 nov. 2008.
- TELEMEDICINE instrumentation pack. Available <http://lsda.jsc.nasa.gov/scripts/hardware/hardw.cfm?hardware_id=1166>. Access in 10 ago. 2009.
- TERRANOVA, O.; NISTRI, R.; COLIANNI, P.; MARRIOTTI, S. *Telemedicina*. Itália: Piccin, 2005.
- VASCONCELOS, Lia. Cura à distância. *Desafios do desenvolvimento*, v. 2, n. 14, p. 52-56, set. 2005.
- SCHREIBER, Anderson. Twitter, Orkut e Facebook — Considerações sobre a responsabilidade civil por danos decorrentes de perfis falsos nas redes sociais. In *Direito Civil e Constituição*. São Paulo: Atlas, 2013, pp. 220-228.

- SCHREIBER, Anderson. Twitter, Orkut e Facebook — Atualização do Código de Defesa do Consumidor: lições para o Direito Civil. In *Direito Civil e Constituição*. São Paulo: Atlas, 2013, pp. 480-483.
- TEPEDINO, Gustavo; FACHIN, Luiz Edson (coords.). *Diálogos sobre direito civil*. v. III. Rio de Janeiro: Renovar, 2012.
- WEINER, Jonathan P. Doctor-patient communication in the e-health era. *Weiner Israel Journal of Health Policy Research* 2012, 1:33. Available: <http://www.ijhpr.org/content/1/1/33> http://ec.europa.eu/justice/newsroom/data-protection/news/120125_en.htm