# Changes in patient-physician relationship at the informatization age

Alvaro Angelo Salles

**Resumo** O artigo questiona o papel do médico no contexto de uma medicina tecnicista e impessoal, orientada para as necessidades do mercado e não as do ser humano. Considerando as relações sociais e do trabalho como condições para a existência plena do homem, revisa os fatos que estão transformando o trabalho médico em produto de mercado e discute a hipervaloração de procedimentos tecnológicos em detrimento da relação interpessoal na consulta e tratamento do doente. Constata, ainda, a crescente perda de valores humanistas e éticos na postura do médico ao aderir a uma medicina mecanicista e sem bases bioéticas, ressaltando a necessidade de preservação da interação médico-patiente a partir de princípios como o respeito à autonomia e à dignidade entre pessoas. Sugere, finalmente, que a 'robotização' do médico pode significar a futura extinção de sua profissão.

**Palavras-chave:** Relações médico-patiente. Humanização da assistência. Bioética. Autonomia profissional. Autonomia pessoal. Aplicação de informática médica. Comunicação.

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Man is a social being, not an island. The concept is nothing new and masterly developed in 17th century by John Donne, English poet: *No man is an island, entire in itself. Each is a piece of the continent, a part of the main. If a clod be washed away by the sea, Europe is the less, as well as if a promontory were, as well as if a manor of thy friend's or of thine own were. Any man's death diminishes me, because I am involved in mankind; and therefore never send to know for whom the bell tolls, it tolls for thee*[1].

The text got evidence after the American writer Ernest Hemingway reproduced it in the novel '*For whom the bell tolls*'. According to Kezen[2] interpretation, Hemingway wanted to show that *the loss of a human being is also our loss, and the death of anyone is our own death.* This idea that all beings interconnected was, more recently, also presented by quantum physicists, by theorists of complexity, by transpersonal psychology and, still, by the biocentrism theory, according to which all forms of life

have a major role in nature, not been, consequently, mankind the center of existence.

As he is not being an island, he cannot live isolated and, thus, living in groups becomes a core condition among those that structure human experience. From the exchange of ideas, from observation of behaviors, from unavoidable adaptations, from rivalries and sympathy and all else that comprise the universe of the so-called human experience is that human being and his species are developed. Belonging to a group, Becker[3] says, in '*The denial of death'*, reveals an attempt of Man to achieve immortality, to see his works continued and to remain alive among followers of that group. People are organized, for example, soccer fans, in religious, political or educational factions and in other kind of associations that bring meaning to their existence, because, they are tribal due to their ancestral nature. From the harmony-conflict binomial, generated by living and interrelation, comes Man validation. To move away from the other or to distance from the other, expresses Soar Filho[4], can cause the rise of unwanted feeling of *not belonging* and, in more severe cases, even lead to psychic illness.

However, to state that Man is gregarian seems a countersense in current society, under many aspects. People are no longer having time for family members, friends and, less still, for those who do not belong to their circle of acquaintances. Many of individuals' relationships are limited to past instances at their jobs or are eminently social when, then, they perform already formatted roles and they are accepted within a standard reducer of true feelings and emotions. More frightening, perhaps, is the preference by machined and virtual personal interaction. Virtual communication or telephone replaced *Eye* talks. At the same time that face-to-face dialogues are reduced, exchanging emails with people in the same firm and, even, in the same house, as Gergen[5] teaches. Man keeps mechanizing what was essentially human and, in the process, the area of patient-physician relationship is not spared.

Work, as well as human relationship, is a base condition for the individual full existence – and under these two aspects, Man develops its identity. In the process, work begins to differentiate his behavior from that of animals and, more so, takes up the meaning of changing action over nature and over itself. Work, states Marx[6], based in similar reasoning, creates Man and, by doing, him creates it.

It is seen that any change in work format and/or production process is not limited to the field of work but expands to social life, changing values, habits and ways of thinking, and it may affect, integrally, the way of being of people. This applies, significantly, to medical work, whose changes have deeper coverage and repercussion, given the professional's social function.

## Technification of medical action

It can be said that, going back in time, two major stages concur for change in physician and patient's roles. The first one took place in the Industrial Revolution starting, it is correct to state, a new society. It slowly changed from a mercantilist feudal to a capitalist system and new work relations were established. Deep changes reached practically the whole social structure. Introduction of assembly line and production in series eliminated, in work, the figure of the *artisan* and *his finished product,* coming into existence the industrialized work, uniform and formatted, outcome of a scheme where each worker is only responsible for a portion of its manufacture and, generally, he does not have access to its final format. The situation today of many large hospitals illustrates this new society: the sick is admitted and goes through several on duty physicians and none of them is responsible for him. When he is discharged from the hospital, none of the on duty physicians does not know the status in which he left or which were the conditions for discharge. Search for productivity is perceived in medical care, a race against time and, consequently, loss of relational space among people.

It is far away the old scenario of man who change raw material getting something useful from it with own effort, getting satisfaction from it. A time when, independently of product, man was the craftsman in all stages until achieving final outcome and, therefore, He identified himself with this product, as stated by Marx[7].

In that context, physician (or witch doctor, depending on the culture) was responsible for *his* patient from the start until the end of a disease and from the birth until death of the patient. Capitalism changed this scenario. Producer and production means became separate. Social classes not only presented clearly the differences in status– poverty of the proletariat and wealth of the bourgeois elite – but also set distance between workers and owners, inserting between them managers, chiefs, inspectors, supervisor, and others in charge to mediate relationships.

This social separation of work grew and achieved our times exemplified by hierarchy of processes and social classes, an event that, in many ways, came to make difficult human contact between people from different social strata. In hospital institutions, the figures of general director, clinical director, and the chief for that specific Day, team leader, shift leader, intensivist, nursery physician, form ward X or Y, resident doctor, intern and so many other physicians, thus showing a hierarchy, specialization, and specific valuations. Labor hand easily becomes, then, merchandise. Medical work, today, is but a consumable material. The physician is inserted in the work market and sells his work for health enterprises, hospitals, and

other health institutions with a capitalist bias and ends up losing, among other things, the effective contact with the patient.

Excesses in specialization and division of tasks may blur physician's perception regarding him and patient. In an assembly line, one may notices that hand worker who repeatedly does the same simple operation ends up by transforming his body into a part that functions automatically within a larger structure. He emerges, therefore, in a process that distances him from his own individuality and, still, from the interrelation with other workers.

The specialized physician may find himself in a similar situation. Automatic in protocols of his own specialization, he may, as defined by Marx[7], turn into a disabled and partial worker. In the process of surrender to a partiality of perception that prevents seeing himself and his patient as integer beings, disseminates this way of being into society. In addition, he may adopt, as outcome of the constant training in a partial function, the search for fast and fragmented knowledge of his world, narrowing therefore the understanding of his own self within a broad productive process in which he takes part and over which he is incapable to act. Finally, the physician acts within a field of work that does not enable full accomplishment of his individuality and he becomes a disposable part, without perceiving that, generally, modifications in work – either manual or intellectual – do not take place to primarily assist the needs of the human being, but that of the market.

The other major stage is the *informatization age* that is expanding changes initiated in the Industrial Revolution, in an accelerate way, a moment of History when works is replaced by sophisticated robots and by computer terminals. The growing informatization trend is to encompass all areas of human activities, been visible already the changes taken place in health care area. It is at this point, when there is a clear trend in ensuring the presence of informatization and of sophisticated technologies in all acts relative to medicine, which needs questioning if outcomes are in harmony with the objectives of changes.

The intention to computerize and machinization of medicine was praiseworthy: it was believed that condition would have been given to physician to be faster and more efficient and, therefore, would have more time for the patient and for him. Laboratory analysis would also be faster and more accurate – mainly those with large technological appeal, such as magnetic resonances, topographies, and genetic researches, among other – in close relation to medical practice. However, an element that should help medical practice began to take its control and the value that the medical act provided began to be searched in technology, turning the physician into an obsolete and non-yielding profit article.

Pressed by hospital or clinics management or, still, by health plan standards, the physician is, currently, forced to see a preset number of patients per month, being considered as

Inefficient and unproductive if he does not do it. Then, he works in a scheme that does not correspond to those specific needs of listening time that allow the physician to develop a *rapport (relationship)*[8] with the patient and gain his confidence, conditions in order to make an appointment be considered as satisfactory, in any area of health care that it is intended to provide help. Within the few minutes of an appointment, also preset, the Professional barely looks up patients' names, and he cannot have the luxury to feel their needs with a conversation, using standards questioning and procedures that, in their turn, standardize the sick person, exempting clinical analysis and reaches diagnosis from laboratorial exams.

Human body fractioning aggravates the situation. Forced to decrease dramatically appointment time, the physician takes shelter in specializations, believing that, within a smaller field of activity, he would be more effective. This outcome may be true, but patient referral to several specialists is also a fact, each renewing the *flash appointment* process, and requesting a different exam. Specialists divided the human body among them; each taking care of his part without considering that patient is a biopsychosocial whole.

Throughout this process, physicians and patients are forgetting that the contact between people is more important than that of an individual with the machine, independently if it shows to be superior in the efficiency perspective for certain practices. Additionally, this contact is indispensable, because there are elements that only exist – or are generated – at the instance of a relationship among beings (in this case, physician, and patient) and that, thus, any machine will not be able to reproduce. By accepting the relationship between two human beings to create the conditions for curing, the physician allows to emerge values such as compassion, solidarity, cooperation, and tolerance, among so many others.

Thus, it can be said in a moment when human being constitution is highlighted, in physical and social dimensions: when a physician perceives a patient as an end in it and not as a mean to achieve his own interests, as Kant[9] stressed in his teachings. However, if relationship of the sick and the machine predominates, that instance of Exchange ceases to exist with a gradual and constant loss of dignity, and of *status* on the physician's side. A situation that has been in expansion throughout the last decades and the innumerous lawsuit and physical or verbal aggressions that physicians were victims in these last decades, evidences it.

Serious collateral effect goes along the Wonders of industrial revolution current stage: new technologies and sophisticated machinery, as created, and incorporated into the productive process and, with that, fulfilling a typical target of capitalist economy, which is more production with fewer resources. In this case, as stressed with less labor hand what evidences some aspects of the situation. Presenting the issue in a simplified manner

in the ratio that machine replaces human labor hand, not only jobs decrease, generally speaking, setting risk of extinguishing a society based in work and human relation. This context foresees the end of humanized care in the health sector. In one hand, patient loses his identity as individual and begins to be identified by a health record number that is, transforming patient into a product of the capitalist economy and the end of his dignity as human being. In the other hand, physician is, also, been changed into a capitalist gear part, which may be disposed if it is considered inefficient or of low productivity for the economic structure.

To devaluate advances of the technical area would be to deny patent benefits that they brought to health care and to forget the so many lives that, daily, are saved thanks to technological progress. However, it does not justify that other outcomes of robotics and informatization phenomena are not considered, which also follows the development of technologies applied to human being care. Robotics in health universe, in day-to-day life, translates into diagnosis, protocols, institutional therapeutics and structures completely mechanized, therefore, meaning faceless patients and professionals, without *individuality*.

At this point, it becomes fundamental to reflect on such submission process of the human to machine. *Without individuality, there is not possibility for autonomy to exist*. The principle of justice in care, without respect to autonomy, is hurt.

In health sector, clinical data collection is not enough as it is in a demographic census. The figure of a physician as trusting human being and available to listen the individual that he is caring for is a core element of treatment and it may define, as in so many times, patient's recovery and becoming an unarguable element of benefit in a treatment. The sheltering human relationship, in addition to be essential for patient to exercise it autonomy, also is a sign of respect to his dignity.

This respect for dignity is a major step for validation of the human being. However, the validation of the physician and patient as *individual* within capitalist structure is, as it seems, a feature not taken much in consideration. Practiced among primitive people, validation of a man by his peers is an essential condition in the construction process of his personality and, consequently, in his insertion in the social environment and acceptance by community. Among more ancient people, it included transition tests in stages of his life (the passage rites, beginning, often, by the ritual of receiving a name) and knowledge and reproduction of his culture and myths. In Western capitalist society, the passage rites are under extinction or becoming artificial. In their replacement, documents take place (such as the identity card, CPF, election registration card, banking credit card). But, this sort of validation does not make the individual to feel inserted in the social environment or protected and sheltered by it, acting more like a kind of state control over the

individual.

Therefore, it may happen that the individual feels protected and sheltered only by his family or by a small portion of his family, or still by few people, what translates into the existence of a hostile society. As outcome, the individual may feel, often, completely alone and vulnerable, since society structured into a capitalist system that favors material gain and not human needs. Man, instead of been validate, is instrumentalized in many levels, ending as gear part in the capitalist machine, as Fromm[10] stressed.

In this scenario, one notes that old figures may be lacking– such as the priest, teacher and, mostly, the physician – in times when individual needs them most. Today's religious leader does not any longer dedicate time to each of his faithful: he is a distant figure, speaking above everyone, very different from the vicar that knew about the life of each of his parish men. The teacher no longer knows by name all of his pupils. Medicine lost the family doctor who, more than a healer, was the counselor always available. Specialists, laboratories and hospitals, as counterpart, multiplied in a trend to make impersonal the responsibility for the patient. Finally, the individual no longer has the figure of authority, respect and wisdom in whom one could trust, talk, treating him as one and single being and not as a faceless individual in a set.

Crucial questions arise from this, as it seems, they are not been perceived by physicians themselves: who, actually, legitimates and validates the professor? Their pupils do. Without pupils, there is not a professor. Who validates the leader? Their followers do. Who legitimates the person is another one, and the social network derives from this. Man is gregarian. Man is not an island. Is there a physician without a patient? Then, who will validate the physician, if is the machine that assists the patient?

Other aspects of the situation also deserve analysis. When a man distances from the others, he departs from himself, since, like in Hemingway text, he loses part of him each time someone departs. The man stays alone and, as it is not proper of his human essence to be *an island*, He suffers the consequences of this fact. The outcomes of replacing relationship among human beings for relationship of man with machine are ever more known: it is increasing the incidence of panic syndrome, is larger the number of psychotic outbursts, for many time lacks and stress is plenty, all are in a run and it seems that no one gets where they want to go... If, in 1952, the *Diagnostic and statistical manual on mental disorders* (DSM-I) recorded 60 pathologies of psychiatric order, 40 years later DSM-IV-TR[11] listed 390 pathologies already. It is observed that the trend is for man to get ill ever more, as the best of machines does not replace human warmth, complicity, compassion and the possibility of exchanging favors and energy, only possible among living beings.

Two hypothetical scenes could illustrate the Situation of medical care in Brazil: the first one, in the present time (and witnessed already many times, both in the public service as in health cooperatives network); and the second, in a future perhaps not too far away (in persisting the speed of replacing man by machine is taking place).

**Scene 1 – nowadays, at a hospital in a large metropolis**

The physician has the office door open. Without standing up, he calls aloud for the next patient, who comes in and sits down. Without raising his eyes or checking if the name in the card is the one of that patient, he questions and takes notes of the symptoms and complaints of the patient. After exactly 7 minutes and a half, he prints a sheet of paper where the exams to be carried out are listed, and hands it out to the patient. He warns the patient about returning with the results of exams. As soon as the patient leaves the room, the physician calls the next patient.

**Scene 2 – Perhaps a few years from now, at the same hospital and in the same metropolis**

A patient, with a 38º fever (that he had checked with a home digital thermometer), goes toward the hospital. He walks toward one of the machines placed in the main lobby. There is not any queue. He sits down, types his identification number as patient and his password, waits for acceptance and, then, types his complaints. The screen shows questions related to his status, which the patient answers. At times, not knowing what to answer, He remains long minutes thinking about the answer. There is not any preset scheduled time for attention and he is at ease in front of the machine. After 50 minutes of questions and answers of the protocol, a print a list of exams to be carried out comes out, also indicating the hospital sector to where patient must go. After completion of exams, he returns to any of the machines (the protocol identifies him). By then, exams are already *on-line* and the machine, adjusting its speech to the level of schooling of the patient, provides the results and is available to answer for any doubts. All clarified, a drug prescription sheet and usage guidance is sent to the hospital pharmacy terminals. The patient may choose to get the medicines right there at the hospital or directly at home. The happy patient returns home. Amidst his remembering, the figure of a physician is a past remembering of his childhood.

If the conditions in the first scene cannot be classified as satisfactory under the most basic Hippocratic principles, worse still is to admit, in the second one, a medical care *without a physician*. It is easily noticed that there was not, in the first scene, a physician exercising the role that is his in the patient-physician relationship, but rather a physician acting as intermediary between the patient and machines that carry out the exams and diagnosis. However, more concerning is to think that, by abdicating his role in patient-physician role, today's physician may be giving a large step toward making real the second scene in a future not too far away.

The quality of patient-physician relationship may have background in teacher-student relationship at medical school. In education area, the fiction of a professor replaced by computerized machines is already a reality with the implementation of several distance learning higher education courses through the internet – and it is impressive the speed that presence training is replaced, facilitating a lot students' graduation.

With the replacement of a professor by a recording presented on a screen, the content goes through without criticism and not allowing for participation of all in questioning and much less so in actual debate. A very same standard lesson is used for new class with complete non-observance of the different characteristics of groups. In addition, the figure of the tutor appears who acts as a mediator between the virtual professor and the student. Their task is to correct exams from the standard text sent by professor. If the figure of a professor as inquirer and creator of critical opinion started its decline with the new informatization age, the future physician's training in the context of this new *educational* philosophy may also undergo severe losses. It is difficult to imagine that influence exercised by the multiplication of distance learning courses will not reach medical school benches. Starting with those disciplines conventionally taken as *theoretical*, it would not be any surprise if the new teaching mode were adopted in health courses.

As with other courses, physicians's training without contact with a professor, who instigates questionings and provokes debates, would be defficient in relation to the essence of ethical experience. It guides relationship among beings – which reveals different interacting facets, such as the professor who gets close to student, the student who considers and analyzes what he listens, the offer of means promoting reflection and questioning. These means, as stressed, are not technology dependent. Implementation of disciplines such as bioethics in medical courses, for example, enables broad analysis of topics such as patients-physicians relationship that considers, among other features, the physical, social, psychological, familial, and economic, environment of those involved. In bioethics debate, questions are considered from principles like respect to autonomy, beneficence, and justice, aiming always to preserve firstly ethical behavior between physician and his patient. Lack of this kind of discussions does not contribute at all to stop the current distancing process between patient and physician, adopted in name of productivity or efficiency.

## Final considerations

The positioning of producing the most possible in the least possible time, advocated by current capitalist and mechanic society, may reveal to be efficient, but equally shows to be incompatible with the exercise of a medicine based in principles that guide bioethical actions of a physician toward his patient, as von Atzingen[12] describes.

It is, then, up to physician to decide between use of the mechanic benefits or be used by it. It is up to him not to allow that fascination of the technological world blurs his ethical awareness and human look over the patient. It is up to him using technical progress without forgetting at any time that patient wants to be seen as human always; fragile at the moment of illness, who does not like to feel alone and non-supported and that, still today, wants the physician's dialogue, listening and protection. To reverse medicine mechanization process would mean understanding that solidarity of who listen is essential to every human being. It would mean, for the physician, be able to have more time for the patient, listening, additionally to his clinical complaints, his reports on pains and joy. It would mean, in the bottom line, to have courage to put his involvement as professional, friend and healing agent above any involvement with machines and exams from the virtual world.

The physician, been a human being, also is a social being, not an island. In addition, He should not accept being instrumental as a profiting object for the capitalist world, distancing from the one who really is the most important element in his activities and which validates his profession: the patient. He should, rather, demand that basic humanitarian principles, such as beneficence and justice in performing the sacred mission of healing, to continue as part of his routine and that patient-physician interaction meant always respect to autonomy and dignity among two individuals. Certainly, this would imply in becoming more human and a little better world. It would mean, also, be aware of the importance of his profession and not accepting that, due to his omission, the physician's figure and medicine would extinguish in a not too far future, as it happened with so many other professions after the emergence of the Industrial Revolution and the informatization age.

**Resumen**

## Transformaciones en la relación médico-patiente en la era de la informatización

El artículo cuestiona el papel del médico en el contexto de una medicina tecnicista e impersonal, orientada hacia las necesidades del mercado y no las del ser humano. Considerando las relaciones sociales y del trabajo como condiciones para la existencia plena del hombre, revisa los hechos que están transformando el trabajo médico en un producto de mercado y discute la sobrevalorización de procedimientos tecnológicos en detrimento de la relación interpersonal en la consulta y tratamiento del enfermo. Constata, además, la creciente pérdida de valores humanistas y éticos en la postura del médico al adherirse a una medicina mecanicista y sin bases bioéticas, resaltando la necesidad de preservación de la interacción médico-patiente partiendo de principios como el de respeto a la autonomía y a la dignidad entre personas. Sugiere, por último, que la *robotización* del médico puede significar la futura extinción de su profesión.

**Palabras-clave:** Relaciones médico-patiente. Humanización de la atención. Bioética. Autonomía profesional. Autonomía personal. Aplicaciones de informática médica. Comunicación.

**Abstract**

## Changes in the doctor-patient relationship in the inform computerization age

The article questions the doctor’s role in the context of an impersonal and technical medicine, oriented towards the market’s needs and not those of humans. Considering the social and work relations as conditions for the whole human existence, it reviews the facts that are transforming the medical work in a product of the market. It also discusses the super valorization of technological procedures in detriment of interpersonal relationship during medical appointments and patient´s treatment. It notes, still, the growing loss of humanistic and ethical values in the physician’s position, when joining a mechanistic medicine and without bioethics foundation, reassuring the need of preserving the interaction doctor-patient within the principles such as respect of autonomy and of dignity among people. Finally, it suggests that the doctor by turning to *robotics* may cause future extinction of his profession.

**Key words:** Physician-patient relations. Humanization of care. Bioethics. Professional autonomy. Personal autonomy. Medical software applications. Communications.

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