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## Articles

# Healthcare and alienation: technology-mediated relationship 

## Cuidado em saúde e alienação: relação mediada pela tecnologia (resumo: p. 14)

Cuidado de salud y alienación: relación mediada por la tecnología (resumen: p. 14)

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There are different perspectives regarding the role of technology at work. There are those that attribute human evolution to the type of technology in use today. There are also those who see technology as inevitably dehumanizing. We present this study to contribute a theoretical-critical line to this debate, especially in the field of healthcare. To this end, we base our analysis on Marx and Lukács's conceptions of work, abstract work and alienation. We develop a perspective of care and work within healthcare, based on this reference. We then open a dialogue with authors within Collective Health, highlighting the debate that links dehumanization of healthcare with the hegemony of hard technologies to the detriment of soft ones. We recognize the importance of this debate, but we argue that even soft technologies follow rationality that is absorbable through abstract work.

Keywords: Social alienation. Health. Technology. Work.

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## Introduction

The idea of progress mediated by the type of technology, which today is hegemonic, floats around within common sense and even in the scientific sphere. From this perspective, because healthcare is a fully social field, it would form part of this process of constant evolution, in which the cornerstone is of technological nature. On the other hand, there are those who abominate the technology itself, because they locate in it the roots of human degradation, which, in the case of healthcare, would be expressed by a process of mechanization and dehumanization.

In this light, we present this study with the objective of contributing to formulation of a theoretical-critical line of understanding about the role of technology in healthcare work, from the capitalist social structure. Thus, we seek to conduct a critique regarding the lines of argument pointed out above, initially guided by the following questions: Under capitalism, is healthcare guided by human needs? Do the technologies that today are possible mediate this process towards meeting such needs?

To answer these questions, we retrieved the contributions of Karl Marx ${ }^{1}$ and Georg Lukács ${ }^{2}$ on the categories of work, abstract work and alienation. This last category gains importance in the ensuing debate, in which we will discuss healthcare in the "clothing" of work. In this regard, we will concern ourselves with the following questions: What are the healthcare mediations forged within abstract work? How do technologies form part of the set of these mediations and at what levels? If there are dissonances between the nature of these technologies and healthcare needs, what are the possible ways to resolve or surmount them?

These new questions encompass critical dialogue regarding scientific production on this subject, especially (but not only) in relation to the joint works of Emerson Merhy and Tulio Batista Franco ${ }^{3,4}$, along with the most recent thesis brought to the debate by Rogério Miranda Gomes ${ }^{5}$. We start from the contributions of these authors, since they managed to uncover important paths to be followed within the framework of capitalism. We dare to take a few more steps, albeit on a preliminary basis, to bring into view a horizon beyond the technological rationality that is possible in capitalism. We envision another technological horizon and we make some critical caveats about the arguments of the abovementioned authors.

One last clarification is called for in this introduction. It needs to be made clear that our analysis does not focus on a specific empirical approach, but is part of an ontological approach that, in line with Lukács ${ }^{2}$, is focused on the general determinations of being in oneself the object of study. Thus, we take the relationship between healthcare and technology as an ontologically determined issue that has a dialogue with contemporary dynamics (in the elements that have become most universal in capitalism, according to the literature on the subject), but without disconnecting us from the foundations of the social being in the face of the relationship with capital.

## Work, externalization and alienation

The category of work is the starting point for our analysis since, in the theory of Marx and Lukacs, it is from this that the central elements of the social being are engendered, as a qualitative sphere of being that is progressively differentiated from nature, but from which it is never divorced ${ }^{2}$.

This is a process of human self-construction that is teleologically directed, although never to the pleasure of the human being. This is because the construction of ideal projects, capable of guiding processes that meet concrete needs (embodying value of use), depends on apprehension of the causal nexus (causality) of what will be transformed ${ }^{2,6,8}$. It is not possible, for example, to transform nature into something that its properties do not allow. Thus, if one wants to build a shack to meet the need for shelter, one needs to look for wood, clay and straw, not fruits and meat. However, if the need is for food, the fruits and meat will be welcome.

The intertwining of teleology and causality, which goes towards meeting the needs for triggering the process, is expressed through objectification of the project, which previously only existed subjectively ${ }^{2}$. From this, there are multiple transformations, because not only do human beings transform something, but also they are transformed ${ }^{1}$. That is, objectification is not unidirectional, since it consists of a process that turns to the subject of work, thereby creating subjective contingencies. "This moment in the work process in which teleology has the aim of causality is the moment of objectification that necessarily corresponds to another moment, that of externalization (Entäusserung)" (p. 40).

Externalization, which is always of a positive nature, is a moment of objectification in which the history of the product of work is distinguished from the history of its creator. Humanization (human self-construction), especially in the individual sphere, takes place through the process of externalization. The products of work processes are particularly aimed at a complex network of relationships and social consequences that go beyond its creator and, therefore, beyond work itself ${ }^{2,2,10}$.

The distinction between the stories of creature and creator generates new possibilities and needs in society as a whole, boosts productive forces and causes social beings, overall, to become complex. Fruitful possibilities for connection between humankind and individuals are created, thus enriching human potentialities. However, this inherent and irrepressible facet of work may, in antagonized societies, be subordinated to particular interests, to the detriment of humankind ${ }^{2,8-11}$.

This is exactly what happens in capitalism, under the aegis of abstract work. Instead of free production of values for use, work is directed to production of what is of interest to the market. Therefore, this production bears particular needs of the social class that owns the means of production. This class is favored in social relations constituted around commodification, when relationships between supposedly equal poles are effected; in fact, there is deep economic inequality.

In the midst of organization of life through widespread exchange of goods, those who have nothing to sell, except themselves, enter this dynamic in a position of inequality, even if they legally seem equal ${ }^{1}$. This constitutes subsuming of the value of use to the exchange value, in which placing value on the product is of interest, and not necessarily the development of humankind ${ }^{1,2,6,8,1,1,11}$.

In the valuation process, the qualitative aspect of the various praxes is relegated, since only a magnitude that makes it possible to equate (and from there, exchange) different values of use is of interest to capital: the length of time of work that on average is socially necessary for production of a kind of merchandise. This process of subsuming from qualitative to quantitative also subsumes the category difference to abstract homogenization. This is an amorphous mass of equal human work (abstract work) that is directed to the needs of the market ${ }^{1,2,6,8,11}$. Under these conditions, the retroactive process of objectification over the subjective sphere begins to act as an obstacle to human potentialities, thereby distancing individuals from the totality of humankind.

While externalization leads to humanization, alienation is the foundation of the dehumanization process. This, in turn, has its roots in abstract work, under the designs of capital. It should be noted that here we are using externalization as a translation of what Lukács called Entäusserung; and alienation as an alternative to Entfremdung. Some contemporary authors have used alienation for Entäusserung and estrangement for Entfremdung, but Lessa ${ }^{12}$ pointed out the misconceptions of this option. This author was part of the group that proposed this translation but, in a movement of selfcriticism, recognized the theoretical confusion since then.

In the author's own words:
The mistake fell apart when we began to consult the texts in German, both the posthumous manuscripts of Lukács and those of Marx, especially "Das Kapital and the Economic-Philosophical Manuscripts of 1844". We realized, then, [...] that translating Entfremdung as estrangement was just Hegelianization of Marx and Lukács. [...] "estrangement" is a process that necessarily presupposes, if not an awareness of being "estranged", at least the intuition or feeling of not being "at home", in a state of what the subject feels is "coziness". In both cases, estrangement is mediated by consciousness; estrangement can only exist as a state of consciousness. In the context of Hegel's thought, this makes sense: for this reason Entfremdung is sometimes translated in Hegel as estrangement even if there is no unanimity about this, even among Hegelians ${ }^{12}$. (p. 19)

With this confusion resolved, we will proceed with alienation (Entfremdung) as the basis of the process of materially constituted dehumanization. Its most eminent mediation consists of fetishism of merchandise, recalling Marx's argument ${ }^{1}$ that:
[...] goods cannot by themselves go to market and be exchanged. We must therefore return to their guardians [...]. People here only exist, reciprocally, as representatives of goods and, therefore, as possessors of goods. (p. 79-80)

This is an emblematic example of inversion between creator and creature (thing). Nevertheless, the way in which capital is reproduced presupposes a series of reifications of another nature, i.e. particular processes that are responsible for mediating the effectiveness and perpetuation of the alienation itself, thereby determining daily life and, through this, conformation of individualities.

In summary, we can affirm that reification consists of making things predominate over subjects. From this, social relations appear as relationships between things, which can occur at two levels: spontaneously, i.e. in everyday life, as a conditioned reflex; or authentically (socially relevant), i.e. embedded in the work complex, like in fetishism of merchandise ${ }^{2,910}$.

## Work, healthcare and technology

Thinking in line with Lukács ${ }^{2}$, we should place healthcare at the center of social praxis, funded by work. Ultimately, at the ontological level, care is not confused with work itself (as an exchange between humans and nature), because it takes place in the context of exchange between people, with the existence of consciousness at the two poles of the relationship ${ }^{7,8,11}$. However, inside this, it reproduces the procedural nature of work as a synthesis of teleology and causality.

As in the work process, when humans develop care, they construct this process previously in their subjectivity (albeit often automatically), effect their ability to read the needs of the subject to be cared for, access their knowledge and, from there, proceed to objectify and exteriorize this, obviously bearing in mind the causality that is appropriate for the reality to be transformed (healthcare needs). However, it needs to be emphasized that while at work, in its most general terms, transformation focuses on non-human nature, healthcare consists of an activity in which the subject who cares contributes to meeting the healthcare needs of others, in a process of exchange between people ${ }^{8}$.

At the level of abstraction, work and healthcare have a relationship that is founded in complexity and gives rise to complexity, both within the universe of social human beings. Concretely, in each historical phase, it is worth observing the particular "clothing" that both have assumed. In the case of capitalism, there is a tendency to homogenize human praxis, such that all human activity at work is reduced so as to equate its different products or services in the market (according to their exchange value) ${ }^{7,8,11}$. Therefore, it is not erroneous to consider healthcare to be work, in the context of a historical period, thereby determining the emergence of abstract work, according to capitalism. In this regard, we can treat healthcare as the core of healthcare work (in the context of abstract work), while maintaining the ontological caveats that we have already made ${ }^{(\mathrm{b})}$.

Thus, apprehension of the mediations and particular elements of healthcare work gains importance. Concerning this, Merhy and Franco ${ }^{3,4}$ argued that the act of live work is within the capacities of the workforce, i.e. the set of healthcare workers. These are the workers who, through their teleological and bodily abilities, take care of other people or contribute to development of their self-care. According to these authors, the workforce is able to intervene on its object of transformation (the health-disease process, as expressed in the "world of healthcare needs") through mediating work resources, which are substantiated technologically at three levels: hard, medium-level and light technologies.
${ }^{(b)}$ Also, in the ontological plane, we make it clear that, here, we are dealing with the most universal elements of work/healthcare, considering the continuities between the various activities that originate from the division and hierarchization of healthcare work within capitalism. The differences between these various activities, converted into particular forms of care (medical care, nursing care, etc..). These are relevant and should form the object of specific studies.

It should be noted that this argument broadens the debate that Donnangelo ${ }^{13}$ and Mendes-Gonçalves ${ }^{14}$ had been having since the 1980s. Albeit with some differences between them, and with contributions from social and human sciences (especially Marxism), these authors ${ }^{13,14}$ suggested that the object of healthcare work was the socially referenced "body". Mendes-Gonçalves ${ }^{14}$ went a little further (corroborated later by Mehry and Franco ${ }^{3,4}$ ), through highlighting that the intervention occurs not only in the "body" but also in a set of needs that make up the process of social determination of health, which therefore demands action in other social complexes outside of healthcare, strictly speaking. Regarding technologies, Mehry and Franco ${ }^{3}$ explicitly mentioned the influence of the debate conducted by Mendes-Gonçalves ${ }^{13}$, through coining the classification of "material technologies" (corresponding to hard technologies) and "non-material technologies" (which would be medium-level technologies). This is also expanded through inclusion of light technologies, referring to the relational field.

Hard technologies are represented by a set of instruments that most commonly relate to the traditional idea of technology, comprising material instruments, ranging from tweezers and scalpels to advanced diagnostic devices. Medium-level technologies comprise a series of techniques and methods that allow systematization of care, supported by knowledge produced a priori, but which can and should be improved in the process. Lastly, light technologies enter the relational field, concerning the way in which healthcare workers and the people or groups that they assist are related ${ }^{3,4}$.

The day-to-day level of reification of healthcare work through technology is based on these mediations that here have only briefly been described. There is a tendency to relegate light technologies, because hard technologies are increasingly prioritized in the care process ${ }^{3,4,11}$. This constitutes a spontaneous reflection within healthcare practice. The relational field is essential for objectification of the previous ideations effected by healthcare workers, given that, unlike when a lumberjack cuts wood without having to convince it that it will be cut, care operates within the scope of consciousnesses with a degree of autonomy among them. Understanding what is happening among the consciousnesses involved in the process, with regard to the object of transformation, is essential for the success of healthcare. However, these relationships have been suppressed and replaced by technological growth, thereby subjugating subjects to things (to hard technologies).

According to Gomes ${ }^{5}$, one of the facets of this process comprises medical superspecialties, like those that deal only with diagnoses. In many cases, radiologists or sonographers (to take two examples) do not even know the history of the individuals who they are assisting, because they are only in an intermediate stage of the care process, with overvaluation of hard technology. These specialists' functions are sometimes considered successful through correct conduction of the diagnostic examination and issuance of a report. This extends, at different levels, to all specialties and fields of healthcare, because in all of them, replacement of anamnesis and the classical physical examination (and other forms of contact) by the sovereignty of laboratory and imaging findings is seen.

Recently, a process of uberization of work has been witnessed, in which a variety of workers, driven by unemployment, are captured by the fallacy of entrepreneurship, effected through the use of technology (digital platforms), without labor protection. This model, originally developed with drivers and delivery workers, has advanced to the field of healthcare, especially in 2020 with the Coronavirus Disease 2019 (Covid-19) pandemic and the need for online healthcare (telehealth, telemedicine and derivatives).

This is a process in which work becomes precarious. It is already underway elsewhere (in various forms), especially involving capture of customers for healthcare plan and insurance companies. In this, according to Gomes ${ }^{5}$, a subjective paradox is created, in which although the physician (or another healthcare worker) performs work in the traditional liberal format, this professional has, in fact, submitted to the dictates of these "mediators", with a form of salary according to productivity that, according to Marx ${ }^{1}$, increases the degree of exploitation and extraction of added value. The workers in this relationship are paid for each procedure performed, which generates the feeling that the more one works, the more one earns. However, from a relative point of view, the salary is always a smaller proportion of the whole amount produced.

This previous process, it seems, is intertwined with the advances of telemedicine (in which skyrocketing growth has been seen to coincide with the situation of the pandemic) and has gained shape similar to the work done by drivers and application delivery men, with technological mediation (and subordination) and payment according to the quantity of procedures or services done. Thus, several platforms have emerged to promote this technological interaction between companies, plans and insurance, healthcare workers and subjects or groups assisted ${ }^{15}$, under the mystique of bringing them closer together (including the flawed argument of strengthen the relational field through the use of hard technologies). Instead, they make relationships more fleeting and healthcare work more precarious, because they cheapen the workforce, increase and accelerate profits and advance dehumanization and alienation (our point of interest), through the mediation of technology. We do not mean that certain online relationships cannot be of complementary (albeit never substantial) nature in various complexes. However, for this to happen, the relationship should be under other circumstances and interests, and should be forged on other cognitive bases.

This is a process of dehumanization in which the negative effects reverberate at all poles of the relationship. The individuals or group that receives assistance is reduced to the condition of a thing, i.e. the disease that they have, or to the mere consumer of a service, such that their health is alienated from them. In turn, healthcare workers' subjectivity (their intelligence, power of analysis, creativity, etc.) becomes subordinated to hard technology ${ }^{11}$.

According to Barbosa ${ }^{16}$ :
[...] the increasing mechanization and 'stupidification' of most manufacturing processes involve the grave danger of general degeneration of our capacity for intelligence. The more that the life opportunities of intelligent workers and apathetic workers become matched through repression of manual skills and the spread of dull and boring work on the assembly line, the more a good brain, skilled hands and a keen eye will become superfluous. (p. 533-4).

Through this, the aim of healthcare is compromised. Another purpose is fulfilled: one of mediation for the profit of the medical-industrial-financial complex, based on the added value extracted from the act of live work ${ }^{3 \cdot 5,11}$. This therefore forms one of the pillars of the biomedical model, guided by curative technical care, because it is centered on sick individual and taken out of its social context. Thus, production of care as a value portrays the authentic reification of healthcare, since the latter is transmuted into merchandise, thereby assuming the "clothing" of work (abstract), in a process in which technology acts decisively.

According to the perspective of Mehry and Franco ${ }^{3,4}$, dealing with this reification (in their view, the technical composition of work with hegemony of hard technologies) needs to come from recovery of the relational field and the role of light technologies in the production of care. This would be a process of retrieval of the subjectivities involved, through building interventions based on the knowledge and experiences of all those involved, including a leading role for the individuals and group that receive assistance.

Gomes ${ }^{5}$ contributed to this debate through referring to a matter that this author believed was inherent to healthcare work, namely: healthcare work would be a privileged process for apprehension of humanization-alienation dialectics, since this work seeks to intervene in individual suffering and thus would have the potential to produce more conscious bonds between individuals and genericity. In our view, some caveats should be taken into account regarding these two important issues.

Firstly, giving emphasis to light technologies within healthcare work allows some advances, but still within the limits determined by capital. Now, if healthcare assumes historically determined "clothing" relating to the division of capitalist-type labor, its mediations are forged under capitalist rationality, which even includes light technologies. Although these are of counter-hegemonic nature in relation to the predominance of hard technologies, they constitute a relational field that can be absorbed by capital. The type of relationship possible within commodified care may even be less pragmatic, considering the experiences and knowledge of the individuals assisted. Nonetheless, it persists in a spiral that produces added value, in which healthcare is bought and sold, even indirectly, when under the mediation of the State.

Through strengthening light technologies, important steps are taken, but the roots of the dehumanization process (alienation) are not affected by the process of dehumanization, because the antagonism between capital and work persists, particularly in the transmutation of healthcare into abstract work. The horizon for overcoming this antagonism presupposes another form of work that would be radically distinct, with technologies derived from another rationality.

According to Mészáros ${ }^{17}$ :
This postulate of material/instrumental neutrality is as sensible as the idea that a computer's hardware can work without software. And even when one comes to have the illusion that this could be done, since the 'operating system' does not need to be loaded separately from a floppy disk or hard drive, the relevant software was already recorded in the hardware. For this reason, no software can be considered 'neutral' (or indifferent) to the purposes for which it was invented [...]. Therefore, a production system for which it is proposed to activate full participation of the associated producers requires an adequately coordinated multiplicity of 'Parallel Processors', in addition to a corresponding operating system that is radically different from the centrally operated alternative [...]. (p. 865)

The analogy of Mészáros ${ }^{17}$ leads us to believe that it is not (only) a question of appropriating or reversing the technology (of any level) produced by capitalism, to obtain something that is at the workers' service. Moreover, a change in the technical composition of work does not imply that this work will cease to be subordinated to capital, exploited, unequal and alienated. Instead, another materiality and another rationality need to be constructed. From these, technologies aimed at meeting needs other than those socially placed by capitalist relations can be constructed ${ }^{18}$. In fact, another direction for healthcare that is emancipated from capital and which dispenses with the dichotomy of capitalists $v$. healthcare workers and their particular technologies is presupposed.

This same premise leads us to be cautious in considering a potential counter-alienator that supposedly would exist within healthcare work. In this, one can even increase the possibilities of (re)connection of healthcare workers with the individuals and groups that are assisted, thereby bringing them closer to awareness about the dehumanizing processes and giving vent to human relations (even if they are of the capitalist type), which, in fact, a matter of considerable importance.

However, it needs to be remembered that, according to Lessa ${ }^{11}$, alienation does not have its roots in the world of consciousness, as some Hegelians might advocate. To believe that alienation could even regress by one inch through an awareness of the dehumanization of health is to relativize the material basis of this social process and its authentic reifications. This would be something corresponding to the "feeling of estrangement" of Hegelian bias. Alternatively, believing that dehumanization is diminished because human connections are established within care (in the sense of reconnecting healthcare workers and the individuals and groups that are assisted) does not mean that these relationships are no longer of a capitalist type.

According to Marxist thought, there is no dealienation through persistence of private ownership of the means of production and the division of society into social classes and the bourgeois State; this applies to both the factory floor and the corridors of a hospital.

If we accept that there is a potential counter-alienator within healthcare work, then we open the door to defense of the alternative that this type of work should be deepened, including with the technologies that are specific to it. This is the point at which the arguments of Mehry and Franco ${ }^{3,4}$ and Gomes ${ }^{5}$ come closer, because this deepening should
be directed to a new technical composition of the work, in which light technologies should predominate and overvaluation of hard technologies (and, to some degree, medium-level technologies) should be combated. This would thus be a dispute between the possible paths within the capital system, with the aim of achieving hegemony within it.

However, the key element in overcoming the alienating nature of healthcare does not consist of deepening of healthcare work, even in a counter-hegemonic way. On the contrary, the key element is to go beyond healthcare work through freeing it from its nature of abstract work (breaking its limits), to reach the level of emancipated healthcare. We emphasize that such a condition presupposes a radically different rationality, which will not be achieved only through appropriation of capitalist technology and deepening of the same cognitive and social basis.

It should be borne in mind that Marx himself ${ }^{19}$, in the chapter on machinery and major industry of Das Kapital, pointed out that technology itself, when driven, would enable humanity to produce what is sufficient for it in a shorter period of time. Through this, there would be free time for us to be effectively human. However, since technology is the result of social forces, it carries with it the rationality demanded by the needs of certain historical phases. That is, in capitalism, the decision-making behind the elaboration of technologies, the type of technique used, the human-social relations involved in this, etc., form part of the dynamics of production and reproduction of capital.

In some particular moments within capitalism itself, one can even open the way for more intense connections between the actors involved. If at the time of Taylorism/Fordism there was a rigid model that repelled the subjectivity of the worker in the process (a manmachine), this might lead to productive restructuring and increasingly a simulacrum of worshipping creativity and interpersonal (even virtual) involvement. Within this horizon, multipurpose workers who would be capable of interacting and capturing the demands of the consumer market (of the people who will consume the products/services) could be forged. These demands could then be reverted into new production processes ${ }^{17}$. For this purpose, capital needs to make use of its own light technologies, re-involve workers' subjectivity in the technical composition of the work and create more sophisticated relational fields in order to expand the process of alienation.

The argument that puts technology as the driver of the process of overcoming alienation is, in fact, itself an expression of the alienation process, because it naively attributes to technologies a neutral character that is non-existent, because it is impossible (even in the case of light technologies).

According to Lessa ${ }^{6}$ :
The great and fatal illusion of this thesis is to imagine that, without revolution, real and effective pressure can result in something different from more and more capitalist technology. In trade union struggles (as well as in the State), the most that workers can achieve is to represent themselves as abstract workers, i.e. as the opposite of capital. In order to have a presence as an antagonistic force against the capital system, it is necessary to constitute a historical denial and, in this sphere of conflicts, the problem-solving field is not in the dispute around the technology employed in capitalist companies. (p. 273).

Another set of needs, another cognitive basis, other rationality, other science and other technology are necessary, constituted from a social platform that is not restricted to exploitation of work and the commodification of human relations. This permeates the process of class struggle, joined to the particular process of struggles for healthcare. This path needs to be deepened and taken to the final consequences, against capital and for humanity. Its direction is towards appropriation of the means of production, and therefore, of technologies, but not to deepen them. Rather, reconstruction is needed, over the course of a transition that allows them to be overcome.

Thus, we also deny the common sense that credits capitalism for its competitive nature and exclusive power for developing technology. Instead, we argue that a society that has been emancipated from capital depends to a high degree on technological development, resulting from effectively human needs, with a rationality that allows individuals to connect with humankind in all its potentialities and needs.

## Final remarks

Technology under a capitalist cognitive basis, which thus seeks to meet the needs established within the limits of the system, consists of mediation for the alienation of healthcare. This, as work within capitalism, has an antagonistic relationship with capital. Overcoming this antagonism requires denial of abstract work itself, towards emancipation of human praxis.

We need to make it clear that the problem lies not in technology itself, but in what is constituted on a cognitive basis, tailored to the needs of the capital system. Nor can one fall into the trap of conferring neutrality on technology, when it supposedly could act in favor of one pole or another, simply by appropriating it.

We have demonstrated, through critical dialogue with other authors, that there are important tasks in the field of immediate temporality, in the sense of what is possible within the limits of capitalism. Among these is the search for more space for light technologies. More recent issues, such as uberization and telehealth, need to be closely monitored, given that the intricacies and impacts of these issues remain incompletely known.

In parallel and in addition, the class struggle needs to aim towards appropriation of technologies, in a broad and profound historical process that can change society from its base upwards. This includes dialectically surpassing the appropriated technologies, thus leading healthcare to be put into effect on other cognitive bases, dispensing with increased valuations and freeing it from relationships of exploitation and domination.

The class struggle is thus the key element of this process. The reconstruction of the processes of clashing against capital, also within healthcare, should be the priority task. Changes to the internal mediations of abstract work are not enough. Instead, this form of work should be surpassed.

## Conflict of interest

The author have no conflict of interest to declare.

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## References

1. Marx K. O capital: crítica da economia política. São Paulo: Nova Cultural; 1988. (Livro primeiro, Tomo I).
2. Lukács G. Para a Ontologia do Ser Social. Maceió: Coletivo Veredas; 2018. v. 14.
3. Merhy EE, Franco TB. Por uma composição técnica do trabalho em saúde centrada no campo relacional e nas tecnologias leves: apontando mudanças para os modelos tecnoassistenciais. Saude Debate. 2003; 27(65):316-23.
4. Merhy EE, Franco TB. Trabalho em saúde. In: Pereira IB, Lima JCF. Dicionário da educação profissional em saúde. Rio de Janeiro: EPSJV; 2008. p. 427-32.
5. Gomes RM. Humanização e desumanização no trabalho em saúde. Rio de Janeiro: Fiocruz; 2017.
6. Lessa S. Trabalho e proletariado no capitalismo contemporâneo. São Paulo: Cortez; 2011.
7. Souza DO. A saúde na perspectiva da 'Ontologia do ser social'. Trab Educ Saude. 2016; 14(2):337-54. Doi: https://doi.org/10.1590/1981-7746-sol00009.
8. Souza DO, Mendonça HPF. Trabalho, ser social e cuidado em saúde: abordagem a partir de Marx e Lukács. Interface (Botucatu). 2017; 21(62):543-52. Doi: https://doi. org/10.1590/1807-57622016.0482.
9. Alcântara N. Lukács: ontologia e alienação. São Paulo: Instituto Lukács; 2014.
10. Alcântara N. Ideologia e alienação: uma relação necessária. Rev Katálysis. 2019; 22(2):235-51. Doi: http://dx.doi.org/10.1590/1982-02592019v22n2p235.
11. Souza DO, Maurício JC. A antinomia da proposta de humanização do cuidado em saúde. Saude Soc. 2018; 27(2):495-505. Doi: https://doi.org/10.1590/s010412902018164811.
12. Lessa S. Prolegômenos e para a ontologia do ser social. Maceió: Coletivo Veredas; 2018.
13. Donnangelo MC. Parte I - Medicina e estrutura social. In: Donnangelo MC, Pereira L. Saude e Sociedade. São Paulo: Duas Cidades; 1976.
14. Mendes-Gonçalves RB. Tecnologia e organização social das práticas de saúde: características tecnológicas do processo de trabalho na rede estadual de centros de saúde de São Paulo. São Paulo: Hucitec, Abrasco; 1994.
15. Morsch JA. Panorama completo sobre a telemedicina no Brasil. Morsch [Internet]. 2020 [citado 13 Ago 2020]. Disponível em: https://telemedicinamorsch.com.br/ blog/telemedicina-no-brasil-2.
16. Barbosa ET. Um recorte transversal da objetivação reificante na relação terapeuta/ cliente. Cienc Saude Colet. 2006; 11(2):527-35. Doi: http://dx.doi.org/10.1590/ S1413-81232006000200029.
17. Mészáros I. Para além do capital: rumo a uma teoria da transição. São Paulo: Boitempo Editorial; 2009.
18. Novaes HT. O fetiche da tecnologia: a experiência das fábricas recuperadas. São Paulo: Expressão Popular; 2010.
19. Marx K. O capital: crítica da economia política. São Paulo: Nova Cultural; 1988. (Livro primeiro, Tomo II).

Existem diferentes perspectivas sobre o papel das tecnologias no trabalho. Há aquelas que atribuem a evolução humana ao tipo de tecnologia hoje vigente e há as que enxergam a tecnologia como inevitavelmente desumanizadora. Este estudo é apresentado a fim de contribuir com uma linha teórico-crítica nesse debate, tomando a particularidade do cuidado em saúde. Para tanto, fundamentamos a análise a partir das concepções de Marx e Lukács sobre trabalho, trabalho abstrato e alienação. Foi adotada uma perspectiva de trabalho e cuidado em saúde a partir desse referencial. Na sequência, dialoga-se com autores da Saúde Coletiva, destacando o debate que atrela a desumanização da saúde à hegemonia das tecnologias duras em detrimento das leves. Sem deixar de reconhecer a importância desse argumento, foram desenvolvidas algumas notas críticas, uma vez que mesmo as tecnologias leves, no capitalismo, acham-se sob uma racionalidade absorvível pelo trabalho abstrato.

Palavras-chave: Alienação social. Saúde. Tecnologia. Trabalho.

Existen diferentes perspectivas sobre el papel de las tecnologías en el trabajo. Hay las que atribuyen la evolución humana al tipo de tecnología vigente hoy día; también hay las que ven la tecnología como inevitablemente deshumanizadora. Presentamos este estudio con el objetivo de contribuir con una línea teórico-crítica en ese debate, tomando la particularidad del cuidado de salud. Para ello, fundamentamos el análisis a partir de las concepciones de Marx y Lukács sobre trabajo, trabajo abstracto y alienación. Adoptamos una perspectiva de trabajo y cuidado en salud a partir de ese factor referencial. A continuación, dialogamos con los autores de la Salud Colectiva, destacando el debate que vincula la deshumanización de la salud a la hegemonía de las tecnologías duras en perjuicio de las blandas. Sin dejar de reconocer la importancia de ese argumento, desarrollamos algunas notas críticas, puesto que incluso las tecnologías blandas, en el capitalismo, se encuentran bajo una racionalidad absorbible por el trabajo abstracto.

Palabras clave: Alienación social. Salud. Tecnología. Trabajo.


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