Digital capitalism and the e-health revolution[1]

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Abstract. This paper discusses the challenges posed by the advent of e-health. To contextualise the phenomenon, it defines the environment in which it arises: digital capitalism. The predatory dynamics of this social structure are likely to transform medical practice. Contemporary medicine seems to be poised between a renewed attention to the patient and their dignity (perspective of the medical humanities) and the reduction of the patient to a mere object of study and discipline biomedicine. By favouring the quantification of the patient and a depersonalising approach, digital medicine risks breaking the bond between these two sides of medicine. At the same time, the development of medical technologies in a capitalist environment poses other risks that need to be weighed up: from the gratuitous appropriation of personal data to the creation of a discriminatory and classist healthcare system. Only by openly addressing these problems will it be possible to integrate these new technologies in a democratic way that promotes the common good.
Keywords: digital medicine; medical humanities; surveillance capitalism; patient dignity.

[es] El capitalismo digital y la revolución de la salud digital

Resumen. El artículo presenta los retos que plantea la llegada de la salud digital. Para contextualizar el fenómeno, define el marco en el que surge: el capitalismo digital. La dinámica depredadora de esta estructura social puede transformar la práctica médica. La medicina contemporánea parece debatirse entre una renovada atención al paciente y a su dignidad (dada por las humanidades médicas) y la reducción del paciente a un mero objeto de estudio y disciplina la biomedicina. La medicina digital, al favorecer la cuantificación del paciente y un enfoque despersonalizado, corre el riesgo de romper el equilibrio entre estas dos almas de la medicina. Al mismo tiempo, el desarrollo de las tecnologías médicas en un entorno capitalista plantea otros riesgos que hay que sopesar: desde la libre apropiación de datos personales hasta la creación de un sistema sanitario discriminatorio y clasista. Sólo abordando abiertamente estas cuestiones será posible integrar las nuevas tecnologías de una forma democrática que promueva el bien común.
Palabras clave: capitalismo de la vigilancia; dignidad del paciente; humanidades médicas; medicina digital.

Summary. 1. Introduction. 2. Digital capitalism. 3. Biomedicine and e-health. 4. Medical humanities and patient dignity. 5. Discussing the dangers of e-Health. 6. Covid-19 and digital capitalism. 7. Conclusions. 8. References.

1. Introduction

Talking about contemporary medicine means tackling two fundamental issues at the same time; on the one hand, there is a strong emphasis on patient care through a trend known as 'medical humanities', and on the other, the increasingly powerful thrust of technological innovation, which generates what we call 'e-health', a development of a technical and physical understanding of medicine. E-health is a new medical paradigm of diagnosis and intervention that is centred on the development of digital gadgets. As one of its first scientific definitions puts it, «e-health is an emerging field in the intersection of medical informatics, public health and business, referring to health services and information delivered or enhanced through the Internet and related technologies» (Eysenbach, 2001). Other definitions insist on the adoption of 'e-commerce' technologies in healthcare (Wickramasinghe et al., 2005), or on the potential that these solutions offer both developed and developing countries (Moghaddasi et al., 2012). Thanks to these tools, staff should have a much more precise set of data at their disposal, enabling them to trace the patient's medical profile in greater detail (Mukherjee et al., 2014). In short, this is a real revolution in medical practice, which promises to radically transform the relationship between doctor and patient

(Ball and Lillis, 2001). This paper will attempt to address the correlation between these two branches of medicine (medical humanities and technological innovation) by critically discussing the advent of e-health from a socio-political perspective.

It is important for social sciences and philosophy to pay attention to this phenomenon. The health sector plays a key role in society. It saves lives, cures people and prevents suffering. Medicine is also instrumental in maintaining social order, contributing to the overall health of the workforce (Navarro, 1985) work, and health; and 3.. Hence, any change that affects medicine also affects society as a whole in a very close way: it can help make it more inclusive and democratic or, on the contrary, more discriminatory and plutocratic. Medicine, as a means of coping with suffering, can either provide meaning to patients' lives or deny it (see Arvidsdotter et al., 2015; Cartwright & Torr, 2005). In addition to being an ever-growing market (World Health Organization, 2020), the health sector is at the symbolic heart of people's and societies' lives. E-health promises to revolutionise medical practice (André, 2019). Its advent, driven by rapid technological developments and the new possibilities offered by digital capitalism, is therefore a challenge to democracy in its fullest sense. It is a matter of transforming a very sensitive area at the heart of people's and society's lives. Such transformations can on the one hand foster better care practices, but on the other hand also reinforce inequalities and exclusion. Only by understanding what these new technologies mean, what changes they imply and how they transform medical practice will it be possible to harness their potential for the common good.

2. Digital capitalism

In order to better understand the issues related to contemporary medicine, it must first be emphasised that it is embedded in a specific social context. Science, technology and society are all structurally linked (Bernal, 1969). Capitalism is the social structure that defines the contemporary paradigm. How to define this society? Fraser and Jaeggi (2018) insist on a few fundamental points: capitalist society is founded on a (gendered) division between productive and reproductive tasks, on that between nature and human beings, on that between economics and politics, and on the coexistence of processes of exploitation and expropriation. Thus, capitalism is a very complex social structure which, among other aspects, subordinates human life to processes of capital accumulation: it is not an anthropocentric social form – as Adorno and Horkheimer (2002) well underlined with the rhetorical figure of a dialectic of Enlightenment returning to barbarism.

One of the elements that has driven the rise of capitalism is undoubtedly a tendency, typical of modernity, towards the quantification of reality. Through quantification operations it is possible to measure, calculate and compare distinct realities. This makes it possible to create broader systematic knowledge, at the

cost of erasing the individuality of each reality (Schmitt, 2018) – e.g., by considering colours as mere frequencies in the electromagnetic wave spectrum. Quantification accompanies the emergence of capitalism. This type of society privileges technical innovation, necessary in opening up new markets, because technology is dependent on the possibility of quantifying reality in order to transform it (and further, because capitalist society revolves around the market as the system of exchange between equivalences. Through the notion of money representing general equivalence (Marx, 1981), or *Pontifex maximus*, thereby relating things by rendering irrelevant their differences (Simmel, 2004), capitalism makes it possible to exchange almost every aspect of reality. Moreover, quantification accompanies the exponential development of another phenomenon typical of social control mechanisms: the possibility of recording social data. The registration of what happens in the social world is the requisite for structuring society evidence is needed to demand responsibility and to guarantee the proper application of contracts (Ferraris, 2010, 2012; Ferraris and Torrengo, 2014). Thus, we can say that the structuring of society through registration is the basis of power. By fostering technical progress and expanding our scientific knowledge of the real world, quantification facilitates registration, and, thus, power. The modern advent of the centralised state and statistics are paradigmatic examples of this (Foucault, 2007, 2008).

Digital technologies play a crucial role in the development of the contemporary phase of capitalism further reinforcing its dynamics and contradictions (Robinson, 2018) and rendering 'invisible' its ideology (Betancourt, 2020) will be. The \"magic\" that digital technology has brought us – self-driving cars, Bitcoin, high frequency trading, the internet of things, social networking, mass surveillance, the 2009 housing bubble has not been considered from an ideological perspective. The Critique of Digital Capitalism identifies how digital technology has captured contemporary society in a reification of capitalist priorities, and also describes digital capitalism as an ideologically \"invisible\" framework that is realized in technology. Written as a series of articles between 2003 and 2015, the book provides a broad critical scope for understanding the inherent demands of capitalist protocols for expansion without constraint (regardless of social, legal or ethical limits. This historical phase has been labelled digital capitalism (Pace, 2018). Digital technologies enable an unprecedented accumulation of data, which is growing exponentially every year (Floridi, 2014; Reinsel et al., 2018). This is why Ferraris (2016) rightly believes that digital technologies are first and foremost recording technologies. Using recorded data (standardised in such a way as to be calculable and comparable) makes it possible to gain important insights into reality, i.e., to exercise power. Despite its apparent fluidity, today's contemporary society is subjected to much more capillary and pervasive control: to quote Han (2017), freedom itself is dialectically transformed into constraint.

We can then address, albeit briefly, the structure that provides for technological and digital innovation.

The drive for this innovation, often financed by public funds (Mazzucato, 2015), is largely controlled (at least in the 'western' world) by giant multinationals based in the United States. This shows clear signs of capital accumulation – not only financial capital, but also amassing of information capital in the form of an oligopolistic market (Staab & Nachtwey, 2016). While such accumulation is useful for technological innovation since valuable products can only be developed through use of big money and large pools of information and skilled labour, amassed accumulation also poses a serious threat to democracy and overall fairness. Large companies are increasingly interested in their customers' information, which they try to understand, predict and influence in order to increase their sales (Zuboff, 2010). It is information that is one of the most valuable assets of this new economy (Zuboff, 1996), and the control of information is a guarantee of power – the power to impose one's agenda (Chakravartty and Schiller, 2010). Following the thesis of the *Dialectic of the Enlightenment*, we could say that we are returning to a historical era in which there is a clear and sharp division between those who can handle information and use it and those who are not capable of doing it (Zuboff, 2018). The majority of the population acts as producers of free information (e.g. using social networks, surfing the Internet, using smartphones or various technological gadgets). This information is then collected and stored by large digital companies, which, thanks to a series of digital scribes, transform it into predictive models and thus into power (Barba del Horno, 2020). This new step towards the appropriation of surplus value (Frayssé, 2015; Fuchs, 2013, 2014; Rodríguez Prieto, 2020) thus shows the structural and structuring function of digital technologies for capitalist society.

3. Biomedicine and e-health

This new phase of financial capitalism mobilises and records a huge amount of data. The amount increases exponentially every year (Reinsel et al., 2018), radically transforming our historical phase – to the point that Floridi (2014) speaks of a fourth revolution that is taking us into 'hyperhistory'. This also has a very important impact on medical innovation – which should come as no surprise: in 2018, healthcare was worth $8.3 trillion (World Health Organization, 2020, p. ix), a market with immense potential that inevitably draws the interest of technology companies.

In the last few years, every major consumer technology corporation, from Google to Apple, to Facebook, Amazon, Microsoft and IBM, has moved decisively into the health and biomedical sector. These are companies that, for the most part, have had little interest in health in the past, but that by virtue of their data expertise and the large amounts of data they already have access to, are becoming important facilitators, if not initiators, of data-driven health research and healthcare (Sharon, 2018, p. 1).

The possibility of monitoring a patient's parameters not only during visits and stays in hospital, but throughout his or her daily life, opens up the possibility of a much more extensive physical study. The ability to compare this information with that of thousands or millions of other people then makes it possible to establish statistical correlations that greatly influence diagnoses. Numerous works are demonstrating the development potential of these new technologies.

> Non-invasive disposable sensors are being developed that can continuously track a wide variety of physiological metrics, including heart rhythm, blood pressure, respiratory rate, the oxygen saturation of haemoglobin, blood glucose concentrations, brain waves, and many more. In fact, a perfect storm has created unparalleled opportunities for innovation in wireless medical technology. Simultaneous progress along five fronts includes (i) the ever-growing use of cell phones by over 4 billion users around the world, (ii) enhanced bandwidth with third– and fourth-generation international mobile telecommunication standards, (iii) pervasive connectivity, (iv) the development of smart phones with computing power equal to that of a personal laptop computer, and (v) ingenious sensors (Topol, 2010, p. 1).

For example, the application of this technology would make it possible to better monitor patients' behaviour in relation to the prescribed treatment regime. In this regard Rohatagi et al. (2016, p. e1101) state that: «A newly developed digital medicine system (DMS) offers an innovative opportunity to objectively measure and report actual patient medication adherence». As one can see, the hopes placed in the development of e-health are considerable. FAMAG Big Tech are heavily investing in this direction, developing applications in different areas of healthcare (e.g. Farr, 2019).

However, all this implies a mechanistic and quantitative understanding of medicine, as do those presented in the Flexner report or employed in the Diagnostic and Statistical Manual of Mental Disorders, now in its fifth edition. Such technological development allows doctors to access more patient data, to be able to compare it better with other data and thus to detect anomalies and be able to remedy them. In all this, the patient is basically seen as a set of data. His or her health, in this perspective, is linked to the mechanistic functioning of his or her individual body, which must respect patterns established as healthy or unproblematic.

This understanding of the body and medicine is hardly new; on the contrary, it has accompanied philosophical modernity from its beginnings, e.g., Descartes' concept of *res extensa*.

> Medicine's metaphysical stance then is a metaphysics of efficiency, concerned with the empirical realm of effects and the rational working out of their causes. […] The important bit about the world is how to manipulate it in order to get the effects that we desire (Bishop, 2008, p. 16).

The trend that best embodies this paradigm is undoubtedly biomedicine, which attempts to reduce illness to an individual physical phenomenon, ignoring its social implications. It is no coincidence that this understanding of medicine was developed during the industrial revolution and was then adopted as the predominant form of healthcare in free market societies (Kennedy, 2015). This shows, once again, the close correlation between techno-scientific development and socio-political evolution (Navarro, 1985) work, and health; and 3.: the process of quantification accompanies and enables the dynamics of mobilisation of reality, fulfilling Bacon's ideal of knowledge as an instrument of power.

4. Medical humanities and patient dignity

Another rapidly developing branch of contemporary medicine is that of medical humanities. These are a series of inter– or transdisciplinary studies that reflect on the ethical, social, anthropological and cultural dimensions of the medical field – both to instrumentally improve the practice of medicine and to better analyse and understand it (Carel and Cooper, 2013).

> A cursory analysis of the literature on MHs shows a substantial lack of consensus as to their aims and scope as a discipline. Within this state of affairs, however, it is generally agreed that MHs are expected to (i) embrace all the disciplines contributing to the conceptual analysis of medicine (MHs as a multi-faceted conceptual framework), and (ii) to foster a depth of human and humane understanding of the professional-patient relationship (MHs as an existential framework) (Chiapperino and Boniolo, 2014, p. 378).

Thus, despite the difficulty of defining this intellectual movement (e.g. Fitzgerald and Callard, 2016) practitioners of this field can bask in their\nrecent successes: in the UK, at least, what was once a loose set of intuitions\n– broadly about animating the clinical and research spaces of biomedicine\nwith concepts and methods from the humanities – has become a visible and\ncoherent set of interventions, with its own journals, conferences, centres, funding\nstreams and students. On\nthe other hand, the growth, coherence and stratification of this heterogeneous\ndomain have raised the spectre of just what, exactly, the medical humanities is\ngrowing into. In particular, scholars have begun to worry that the success of\nthe medical humanities is tied up with being useful to biomedicine,\nthat the medical humanities has been able to establish itself only by appearing as\nthe domain of pleasant (but more or less inconsequential, we can still identify some of its common characteristics. The key assumption of this approach is that it is linked to the recognition of the patient as a person, with a dignity and suffering that must be taken care of. Through the integration of critical and creative methods typical of the humanities: «practitioners or students can take positive and constructive attitudes to medicine and healthcare's

inherent uncertainty, rather than attempt to deny provisionality, disturbance, lack of certainty, closure and therefore control» (Bolton, 2008, p. 145).

Medical humanities are thus a trend aimed at subverting the power dynamics inherent in medicine – which, as a power structure, tends to quantify and depersonalize the patient, depriving him or her of their autonomy and individuality. This is why the relationship between medical staff and patients is considered to be one of the central aspects of medicine: it is here that the pain and suffering that accompanies illness manifests itself. This consideration does not apply only to doctors, but to all staff who come into contact with patients, which is why there are calls to move beyond medical humanities towards a new approach labelled health humanities (Crawford et al., 2010).

Overall, it can be said that a basic definition of the dignity of the patient must necessarily include recognition (Honneth, 2002) of his or her being a person, a subject, that is, someone that must not be reduced to a mere object. It is only on the basis of recognising the patient as a person that it is possible to truly care for his or her pain and thus to develop a therapeutic relationship. If, on the other hand, the patient is reduced to a mere physical body and treatment simply to the restoration of parameters within set values, then no co-relation is established, only imposition. As an institutional structure, medicine is indeed an important field in which power relations within a society develop (Jones and Porter, 1994). This means that the institution of medicine can be used to impose a certain program, disciplining the bodies of patients, but also that it can be constituted as a field of social critique and emancipation that provides new means of expression for those who suffer (Atkinson et al., 2015).

5. Discussing the dangers of e-health

Without falling into the dualistic reductionism that divides the good medical humanities from the bad technicalities of digital medicine, it is important to discuss the issues that these phenomena are raising. An important branch of social science and philosophy (e.g. Bernal, 1969; Foucault, 2008; Heidegger, 1977) shows the close link between technological development and social structures. This completely debunks the notion of solutionism (Morozov, 2013), a perspective according to which technological development is politically and socially neutral, contextless and objective. Solutionism is clearly displayed in celebratory descriptions of technology as a problem-solving agent – «technology has the potential to help solve many of the problems faced by developed and developing countries alike; from improving healthcare delivery to opening up commerce opportunities» (Wickramasinghe et al., 2005, p. 317). In reality, new technologies do not necessarily constitute a new way of reaching cyber utopias (Pieterse, 2010) and empowering patients. The introduction of major private actors from the world of technology into the health system – such as the Novartis and Microsoft alliance

(Neville and Waters, 2019), Amazon's Halo bracelet (Fowler and Kelly, 2020), the US Department of Veterans Affairs joining forces with Apple to provide tablets to ex-soldiers and facilitate their use of telemedicine (Veterans Affairs, 2020) or Google 8.5M donation to collect and process big data on Covid-19 (Dyrda, 2020), raises important questions. These collaborations entails considerable risks both for the conception of the health professions and for their deontology. Big Tech companies are not obliged to follow ethical codes, and the technical staff developing the gadgets do not necessarily have the medical and philosophical-political background needed to understand the consequences of their inventions. The very function of these technologies is to become the medium between the doctor and the patient. This means that technology will occupy a prominent place in defining the development of medicine, even though they have not necessarily been developed by people with a sufficient understanding of the complexities of medical discipline (Waters, 2020). Furthermore, in an area as sensitive as health, such a revolution can have major consequences. By entering the health sector, Big Tech companies have proven to weigh in beyond the highest parameter levels of other players within the negotiating field. When mediating in the game, they far outweigh even state legislators in terms of capital, influence and negotiating strength.

The fact that private actors, who are required neither to comply with deontological obligations nor to attempt to fully understand the complexity within which the medical discipline is played out, can not only enter the sector, but even revolutionise it, is problematic to say the least. These outsiders are operate on an extractive market model, a predatory model with respect to personal data (Zuboff, 2018) which privatises the benefits of data produced by social life (Mann et al., 2020; Morozov and Bria, 2018). This model is antithetical in regards to a desirable standard for healthcare in which respect for the individual and the centrality of the patient should be key elements (Chochinov, 2002, 2007; Jacobson, 2009, 2012; Matiti et al., 2007; Parsons and Hooker, 2010; Matiti et al., 2007; Parsons and Hooker, 2010). If these technologies prove to be developed without any external control or a legal framework requiring them to orient their activity towards the common good, the dominant role and aims of Big Tech will be reinforced (Hoffman and Podgurski, 2009). As a consequence, this could weaken the democratic structure of Western societies, fostering various dynamics that would widen class inequality as the power gap between the main players and Big Tech increases. Big Tech would be able to strengthen their dominant position by imposing their own conditions on the patients, who are the producers of data, and healthcare systems representing buyers of the technologies. Furthermore, the possibilities of continuous diagnosis and data collection would imply a widening gap between those who can afford them and those who are excluded (Jha et al., 2009; Wicks et al., 2014). In turn, this situation would reinforce inequality in weaker healthcare systems, pushing the wealthy into private healthcare and leaving the majority of the population without an important medical asset. The possibility of processing a person's health profile from a set of personal data also poses major problems (Giota and Kleftaras, 2014; Kluge, 2007). It is plausible that insurance companies will use this data to exclude the most fragile people from their schemes, contributing to the marginalisation and exclusion of the most unfortunate. This would, moreover, constitute a breach of the legal form of the contract, since one of the two parties would be in possession of much more information, i.e., would be in a dominant and predatory position.

A further deontological problem is posed by the reduction of the patient to a mere mine of data. Digital technologies work on the basis of quantification, i.e. flattening reality to quantifiable and comparable information. This completely nullifies historical and personal aspects, the very dignity of the patient as a person (Chochinov, 2002, 2007; Jacobson, 2009, 2012; Matiti et al., 2007; Parsons and Hooker, 2010; Matiti et al., 2007; Parsons and Hooker, 2010). The healthcare sector has always been confronted with the tension between these two poles – the constitution of a knowledge/power that has the person as its object and respect for the patient as a subject. However, digital medicine risks to completely tip the balance of medical practice towards the objectification of patients and therefore their annulment as individuals. This would jeopardise the very purpose of medicine. Here we can observe what is really interesting in the development of digital medicine: it exposes the stark structural contradictions within medicine (Navarro, 1985) work, and health; and 3., inextricably linking these opposing frameworks to those of the capitalist society. The penetration of the technological market – the key industry of advanced capitalism – into the health sector – which in 2018 was worth $8.3 trillion (World Health Organization, 2020, p. ix) – is breaking the structure of the latter, bringing out more clearly contradictions that already existed, albeit less visibly and with lower intensity.

6. Covid-19 and digital capitalism

The recent Covid-19 pandemic has had a major influence on the lives of numerous individuals. Forms of lockdown are estimated to have affected more than half the world population simultaneously (Sandford, 2020). This has forced a radical transformation of many areas of everyday life, preventing traditional socialisation and instead favouring forms of interaction mediated by digital technologies. This has further widened the digital divide between those who have the means to profitably master new technologies and those who do not, with important consequences, for example, in education opportunities (Iivari et al., 2020). The same logic is in place in teleworking, which has spread considerably in the tertiary sector.

> This sudden need for work from home is driving the digital transformation of the workforce and the evolution of the work environment

at an unprecedented speed. Mass adoption of telecommuting has become a vital business change since the outbreak of the virus (Savić, 2020, p. 104).

Again, to have or not to have conditions, space and technological equipment to be able to work adequately from home significantly influences the quality of life, especially because «employees might not want to go back to physical offices even after the pandemic eases» (Kim, 2020, p. 212). Covid-19 has thus acted as a catalyst for the penetration of digital technologies into everyday life. As Soto-Acosta (2020, p. 260) notes: «Recent figures show a 60% increase of Internet traffic from December 2019 to May 2020, standing out that videoconference traffic has increased around 120% compared to levels before the outbreak». Even states were obliged to quickly introduce e-government programmes (Agostino et al., 2021).

Obviously, Covid-19 also had a major impact on e-health and healthcare. Being the first real pandemic emergency in the age of digital capitalism:

the policy response to COVID-19 in many countries has effectively become a testing ground for the viability and efficacy of approaches which use information and communications technology to enable or enhance various aspects of public health provisioning and targeting (Fahey and Hino, 2020, p. 1).

According to experts, «digital technologies can be used at different stages of the COVID-19 outbreak, including data-driven disease surveillance, screening, triage, diagnosis, and monitoring» (Alwashmi, 2020, p. 1). A number of researchers suggest that technological solutions that contributed to managing the pandemic should be structurally integrated into the sector by developing public-private partnerships with tech companies (Scott et al., 2020; Torous et al., 2020), while others insist on not falling into sterile digitalism, which is defined as «an unchecked and misguided belief on extreme digital connectivity without considering the attendant adverse repercussions on science, human rights, and everyday practices of democracy» (Bayram et al., 2020, p. 460). Indeed, the introduction of new technologies in the healthcare sector risks increasing inequalities and endangering democracy e.g. by promoting forms of monitoring and social control (Gerke et al., 2020; Sharma et al., 2020; Wen et al., 2020). While not delving into the socio-economic causes of these threats and without venturing into a broader social critique, several doctors recognised the importance of establishing deontological criteria for e-health (Inkster et al., 2020).

7. Conclusions

Technologies are not a bad thing in themselves; on the contrary, they can provide numerous benefits for care and for the common good. What needs to be carefully considered are the conditions under which these technologies are mobilised. In the current context of

technology, one can observe an increasingly monopolistic and predatory industry, a regression of labour rights (Di Bernardo, 2016) and a general inability on the part of representatives of the common good to defend the interests of citizens against Big Tech. In this situation, transforming the healthcare system is problematic, to say the least. The risks of worsening care are very high. If one cares about medicine as a means of caring for the patient, as a discipline that offers assistance to those who suffer, one cannot ignore the purely political issues that affect this field.

This is where the democratic dimension comes into play. If medicine wishes to carry out its mission to the end, as hinted at by its humanitarian ethos, it cannot avoid practising according to egalitarian principles. Developing the shared ideas of the medical humanities, it can in fact be said that treatment is only adequate if it respects the patient. Respect implies several things, the most important of which are non-exclusion and recognition. Non-exclusion means that medicine cannot discriminate into first and second class patients, into people to be treated and people to be abandoned. If it did, it would not be fulfilling its role. Recognition implies that medicine must be able to deal with the patient as a person while carrying out its task, and not merely as a physical substratum. The patient must be respected for what he or she is, as an autonomous entity, and not used as a mere object.

It can be considered that medicine, like many other professions, suffers from a double and contradictory drive: on the one hand, there is the tendency towards the convergence of interests and the common good, and on the other hand, the need to sell one's services and thus to act in opposition to the interests of the other person. This is the classical approach to the contradiction of disciplines that Plato provides in the *Republic* (Plato, 1969, pp. 345c-346c). The drive towards confrontation and enrichment in this model is external to the discipline, linked to the chrematistic perversion of the human being (Aristotle, 1944, pp. 1256a-1257a). However, as we have seen from this newly developing perspective, things are now much more complex and intricate. The drive to objectify the patient, to nullify his or her dignity, comes not only from the doctor's desire to enrich himself, but also from the very exercise of his power-knowledge. The contradiction between taking care of and objectifying the patient is what structurally defines medicine. It is precisely for this reason, however, that the advent of e-health in a post-industrial capitalist structure is problematic and risky: in fact, this new trend risks completely disrupting the dynamic balance between the two strands of medicine, leading to a definitive break between these two dimensions. If this rupture were to happen, healthcare systems would become less and less egalitarian and inclusive, increasingly adapting instead to market dynamics.

What is at stake, with the advent of capitalistic e-health, is therefore the survival of the health professions as a space for inclusion and solidarity (Gould, 2018) and hence, as a place of resistance to the pervasiveness of market logics. New research on the subject is needed, both by the social sciences and

humanities and by medical practitioners. In the near future, legal and deontological frameworks will have to be established within which new technologies can be introduced. The relevant rules for treatment should therefore be discussed in greater depth, and the ethical and socio-political effects of each specific technology should be analysed in detail, so as to guarantee the quality and universality of healthcare as far as possible.

The interdisciplinary partnership between philosophy, social sciences and medicine is needed in order to develop a more in-depth analysis of e-health. Crucially, a collaborative effort could be further developed to provide a critical interpretation of digital capitalism as a whole. This uniting of interdisciplinary forces may be a decisive starting point in renewing and strengthening the important role of critical theory.

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