



New technologies and human dignity in current medicine

Mosè Cometta, PhD

Visiting researcher at Università degli Studi di Torino

Corresponding Author:

Mosè Cometta
PhD, visiting researcher
Università degli Studi di Torino
Email: mose dot cometta at unito dot it

Received: 04-DEC-2020

Accepted: 12-MAR-2021

Published: 13-MAY-2021

Abstract

This paper addresses the problems and challenges posed by the development of digital medicine as seen from the perspective of the medical humanities. Beyond the obvious advantages of technological innovation, the paper emphasizes the importance of an in-depth debate on the risks of patient quantification and growing inequalities. The education of new health professionals is a key element for the success of this debate.

Key words: Digital medicine; Dignity; Surveillance capitalism; Technology.

Introduction

The advent of new information and of communication technologies promotes innovation on a global scale. Thanks to the ability to record and perform calculations on an unimaginable amount of data, new technologies offer significant potential for development in medicine.

However, this way of conceiving medicine and medical research has an important effect on patient ontology. The transformation of patients into computable data completely erases their personality, their individuality. Contemporary medical science is therefore faced with an important ethical challenge: on the one hand to take advantage of the possibilities of treatment and diagnosis offered by new technologies, and on the other hand to not fall into a reductionism that

eliminates the human dignity of the patient. This paper addresses the issue from an interdisciplinary point of view, combining insights from philosophy and the social sciences.

The Rise of Digital Capitalism

Digital capitalism has a major influence on contemporary society.[1] As with all great historical processes, in the multiplicity and dynamism of its manifestations, it is possible to trace some regularities. These, in turn, can allow us to further examine what is happening and the effects that this has on society in general and medicine in particular. There are two key aspects that are important to emphasize.

The first significant feature of the technical and technological apparatus of contemporary

Cite this article as: Cometta M. New technologies and human dignity in current medicine. RHiME. 2021;8:65-8.

society is the centrality of registration. According to the philosopher Maurizio Ferraris, new information technologies are a significant step towards an increasingly widespread recording of events in the world. [2-4] Computers, tablets, cell phones, video cameras and sensors of all kinds are constantly recording. The recording of this data is influenced by a series of parameters – the most relevant is being able to compare and use the data in calculations. They are not qualitative data but always and eminently quantitative data. The centrality of new technologies means that the data collected on society is increasingly quantitative. The very way of undertaking social governance is increasingly based on quantitative parameters. This, obviously, raises the question of how to transform reality into comparable and calculable data. Who uses what criteria?

The second important aspect is that this technology development operation involves a multiplicity of players, but is strongly dominated by private American companies. [5] These companies are operating in an increasingly global market and are major players worldwide. Their choices affect the lives of billions of people.[6] These companies offer free services to their users while collecting and storing large amounts of personal data which are used to generate behavioural models, and thus are able to sell advertising in a highly targeted and profitable way – drawing rent from people’s behavior, [7,8] for what has been called unpaid labor.[9] In this way they can influence the future behaviour of their users. This allows an unprecedented accumulation of power in the hands of a few actors and what has been labelled surveillance capitalism.[10,11] In surveillance capitalism the producer’s raw materials are the users’ behaviors that are recorded and analyzed, and then organized into predictive models to be sold to customers – the advertising companies. Here, then, the human being is considered as a tool. This radical perspective must be

understood before applying new technologies to the medical field.

Digital Medicine

Technological innovation, allowing for vast data collection, opens new frontiers in medical research. New gadgets allow data collection with continuous and thorough monitoring of large populations. The abundance of this information has pushed many entrepreneurs to invest in digital medicine. Several researchers have underlined how this new research can radically transform healthcare.[12-14] These technologies, interposing themselves between the doctor and the patient, can completely alter the care relationship.

Here are some points worth discussing. First, medical applications resulting from technological and digital development are often presented as technical solutions that empower patients – with a reductionist perspective that tends to see technology as something abstract and unrelated to power relations, what has been called solutionism. [15] In reality, however, the introduction of new players, often private technology companies, into the care framework raises a number of major political issues. Technological companies do not necessarily have the same interests or the same ethical and deontological duties as health care providers. In addition, the collection of sensitive data by private actors can be mobilized to marginalize at-risk groups of the population. For example, health insurance companies can exclude those at risk as they are more expensive and less profitable to insure. Even more so, the costs of a monitored life exclude poor sections of the population from these benefits, increasing health inequality.

Secondly, the very way digital medical research is conceived poses important ethical and deontological problems. The health humanities have long insisted on the importance of respecting the dignity of the

patient as a central element of medical care. [16,17] Medicine, in this perspective, is not and cannot be reduced to a simple technique. Central to medicine is the relationship of care. To possess dignity means, according to Kant, to be incomparable, something that cannot be priced or quantified.[18] The enormous predictive power of digital medicine operates at the opposite of this definition: quantifying, calculating and comparing personal data. In the realm of digital medicine, patients are reduced to mere producers of data. They are only a means to obtain refined technical knowledge of the human body. There seems to be no regard for ethical considerations.

Digital medicine, while offering potential diagnostic advantages, threatens to radically transform the nature of the medical discipline. Such a technical reshaping needs to be thoroughly debated. Health professionals and other stakeholders must be made aware of the technical and deontological repercussions of these new technologies. This obviously does not mean renouncing the advantages offered by new technologies. However, a serious debate is needed. We must discuss how to manage the development of such sensitive technologies: private multinational companies that respond to the interests of the financial markets are not necessarily the only possible – or desirable – players.[19]

The pervasiveness of new technology is sparking this type of debate in several fields. For instance, with regard to urban planning, Barcelona is developing a big data management model that allows the common good to be maintained as a core value of technological development.[20,21] The health humanities, with their emphasis on the human condition, have an important role to

play in this debate. To adequately address the ethical challenges posed by technological change, medicine cannot be enclosed within a sterile monodisciplinary perspective. It is necessary to understand that the mechanisms underlying the development of digital medicine and surveillance capitalism are the same. Thus, a debate on the former implies a broader social debate on the type of society we want and on the values prioritised. To overcome the challenge of new technologies, medicine must rediscover its social and political nature – something that is eminently doable through the multiple tools of the health humanities.

Conclusion

In discussing the challenges posed to contemporary medicine by digital medicine we have highlighted two fundamental aspects: the inequalities that arise from a capitalist management of technological developments, and the danger to the dignity of the patient who is seen as a set of quantitative data and no longer as a person. To overcome these challenges medicine (and especially the health humanities) must actively participate in the theoretical, social and political debate about the values, rights and rules to be imposed on technological innovation. Monodisciplinary ethical commissions are not enough to properly assess the development of digital medicine. A serious consideration of this issue requires a deeper and broader reflection. This paper is only a first step in this direction and many other steps need to be taken. In order to achieve a proper debate, it is especially important to educate healthcare professionals and other stakeholders – emphasizing the ethical and social aspects of medical technologies, while maintaining the centrality of the dignity of the patient as a founding value for medicine.

Acknowledgement: This work was supported by the Swiss National Science Foundation under Grant P2LAP1_191401.

References

1. Pace J. The concept of digital capitalism. *Commun Theory*. 2018;28(3):254-69.
2. Ferraris M. Total mobilization. *The Monist*. 2014;97(2):200-21.
3. Ferraris M, Torrenzo G. Documentality: A theory of social reality. *Rivista di Estetica*. 2014;57:11-27.
4. Ferraris M. Scrittura, archiscrittura, pensiero. *Estetica*. 2010;44:45-60.
5. Morozov E. Socialize the data centres! *New Left Review*. 2015;91:45-66.
6. Fuchs C. Theorising and analysing digital labour: From global value chains to modes of production. *The Political Economy of Communication*. 2013;2(1):3-27.
7. Fraysse O. Is the Concept of Rent Relevant to a Discussion of Surplus Value in the Digital World? In: Fisher E, Fuchs C, editors. *Reconsidering Value and Labour in the Digital Age*. London: Palgrave Macmillan. 2015:172-87.
8. Fuchs C. Digital prosumption labour on social media in the context of the capitalist regime of time. *Time & Society*. 2014;23(1):97-123.
9. Fuchs C, Seignani S. What is digital labour? What is digital work? What's their difference? And why do these questions matter for understanding social media? *tripleC: Communication, Capitalism & Critique*. 2013;11(2):237-93.
10. Jimenez Gonzalez A. Tech power: a critical approach to digital corporations. *TEKN*. 2020;17(1):77-85.
11. Zuboff S. *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. New York: Public Affairs; 2018.
12. Elenko E, Underwood L, Zohar D. Defining digital medicine. *Nat Biotechnol*. 2015;33(5):456-61.
13. Topol EJ. Transforming Medicine via Digital Innovation. *Sci Transl Med*. 2010;2(16):1-4.
14. Rohatagi S, Profit D, Hatch A, Zhao C, Docherty JP, Peters-Strickland TS. Optimization of a digital medicine system in psychiatry. *J Clin Psychiatry*. 2016;77(09):1101-7.
15. Morozov E. *To save everything, click here: the folly of technological solutionism*. New York: PublicAffairs; 2013.
16. Chochinov HM. Dignity and the essence of medicine: the A, B, C, and D of dignity conserving care. *BMJ*. 2007;335(7612):184-7.
17. Parsons A, Hooker C. Dignity and Narrative Medicine. *J Bioeth Inq*. 2010;7(4):345-51.
18. Kant I. *Groundwork for the metaphysics of morals*. Wood AW, editor. New Haven: Yale University Press; 2002.
19. Barba del Horno M. Field, connection and inequality. Towards a political economy of practices in the era of digital capitalism. *TEKN*. 2020;17(2):121-30.[Spanish]
20. Mann M, Mitchell P, Foth M, Anastasiu I. #BlockSidewalk to Barcelona: Technological sovereignty and the social license to operate smart cities. *J Assoc Inf Sci Technol*. 2020;71(9):1103-15.
21. Morozov E, Bria F. *Rethinking the Smart City. Democratizing Urban Technology*. New York: Rosa Luxemburg Stiftung; 2018.