Medical humanities in a rapidly changing world. Is there any worth in it? [version 1]

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Abstract
This article was migrated. The article was marked as recommended.

Humanism has shaped mankind during the last centuries, but technology and recent social changes have shifted the paradigm towards a data driven society where humans are no longer at the center of the world. Medicine is not alien to this new situation; clinical practice is rapidly changing, and medical curricula must adapt to it. Is there any place for humanities in medical training? In this paper we analyze the present situation of humanism in a technology flooded health environment, the role of humanities in contemporary medical curricula and we propose a series of measures to be taken with the purpose of educating the next generation of doctors.

Keywords
Humanism, medical humanities, dataism, burn-out syndrome
Perspective

Humanism is the philosophical doctrine that places the human being at the centre of the universe, the “realm of mankind”. Born during the Renaissance from the recovery of classical Roman authors such as Gellius, humanism replaced theism and heralded the end of the Middle Ages and the coming of a new society where reason prevailed over dogma, freedom over servitude and man over God.

Throughout the next centuries humanism brought enlightenment, supported empirical science, inspired human rights declaration and became the backbone of the eighteenth-century revolutions that carried humanity into the contemporary era. The idea of the progress of mankind, so popular in the nineteenth century, branched off from humanism and even religious scholars devoutly embraced it.

Modern medicine is no less in debt to humanism, and not only because of the already mentioned relationship with science, but also because of its view on the right to a good healthcare as a core component of democratic societies. Many physicians are famous not only for their scientific work but also for their dedication to music (Aleksandr Borodin, Edward Jenner, Theodor Billroth), literature (John Keats, Anton Chekov, Louis Ferdinand Celine, William Carlos William, Mikhail Bulgakov, sir Arthur Conan-Doyle), philosophy (Maimonides, John Locke, Albert Schweitzer, Friedrich Schiller) or politics (Arnulfo Arias, Juscelino Kubitschek, José Rizal, William Henry Harrison). Medicine and humanism have walked hand in hand throughout centuries.

But all this has changed. Swiftly and recently.

Humanism is no longer the prevailing ideology, neither in society nor in medicine. As Yuval Noah Harari brilliantly explained in his book Homo Deus, technological advances and economic growth have shifted society towards a data-aware profit-driven world where the human being has been kicked off the throne and replaced by data and algorithms. Dataism is the new paradigm and since big data governs our lives, what is the place for humans in this new society? Is there any point in humanism? Arts and humanities are progressively being marginalized from the academic curricula at schools and questions arise over the necessity to maintain programs on liberal arts, philosophy or classic studies at many universities due to their low demand and their lack of ability to render quantifiable outcome in terms of economic benefit, prestige or political power.

Modern medicine too is a data driven activity. Healthcare politics heavily depend on plain numbers: surgical waiting list, cost per patient and procedure, bed rotation index, number of emergencies attended, patients per doctor ratio. Physician work tends as well to be reduced to ciphers: number of cases per doctor, time in office, complication rate, patient satisfaction rate, impact factor, H index. Efficiency and sustainability are the magic words in an underfunded public health system and numbers are required. Technology will dramatically reduce the number of healthcare workers in the next decades. Big data and algorithms have provided almost flawless diagnostic software, Toyota has built robots that already deliver medication to patients, wearable devices measure medical parameters that not long ago needed a healthcare worker to take, surgical robots have de facto eliminated the need for a surgeon to be in the same place as the patient. What will the roll of doctors be in twenty years when the current medical students of medicine will be running the system? Will they just be some sort of skilled technicians? What will society require from them? How should we train them?

These are difficult questions with no clear answer at present. If humanism is witnessing its decline, should Medical Humanities be included in an already overloaded medical curricula?

The answer is probably yes but let us take some considerations into account.

1. Including the humanities of any type into medical schools, although convenient, may be too little too late. We must bear in mind that the most important measure to be taken in order to produce future humanistic physicians would be to defend the importance of humanities at primary and secondary schools. Doctors are highly qualified scientists who fight death and suffering and, as such, are highly considered by society. From this position of privilege relevant physicians should speak-up at educational forums stressing the necessity of non-scientific subjects to be taught at schools.

2. History of Medicine is at present the only non-scientific subject included in most medical curricula in Spain. It is widely viewed by students as a minor distraction from basic and clinical science and its real impact in their training and future practice is minimal; a different angle could be tried. Why not employ the time in other activities instead of attending lectures and answering multiple choice questions at the end of the term? Why not
expose the students to real life situations such as visiting palliative care units or mental health wards and writing about their experience? Debates on ethical issues? Art seminars with real artists? Medicine undergraduates are intelligent and avid readers; their personal interests go beyond science. Let’s just give them time and opportunities to engage with humanities and let them decide how.

3. Science without a humanistic approach is useless and dangerous. The moment medicine is bereft of its primary goal, working for the individual and collective health, it becomes a meaningless activity. Technology and evolution of society in the last decades have greatly changed clinical practice; if physicians are not aware of this and do not stand-up against this ongoing dehumanization, the future of medicine and therefore society will be obscure. Doctors must be social leaders and teach by example; students need to meet in their practices not just skillful surgeons or encyclopedic internists, but sympathetic doctors who have a rapport with their staff and take their time to communicate with patients, who are socially aware and cultural consumers and show values and integrity. Be as you would wish them to be.

4. Medicine is a long-term career, sometimes rewarding, sometimes deceiving, not always amazing. Burn-out syndrome is an epidemic phenomenon amongst doctors and an expensive and serious problem for health systems. Humanistic education helps to cope with the ups and downs of daily clinical work building resilient physicians. Investing in medical humanities to achieve top professionals may be one of the soundest ideas of medical schools. Let’s give value to it: organize congresses and symposiums, write papers, attend meetings, exchange experiences with colleagues. Let’s put medical humanities into regular practice. We may not change the future, but we will make us fitter to it.

Take Home Messages

- The intrinsic value of medical humanities is building more resilient and socially-aware physicians.
- Different angles should be tried to engage medical students with the humanities.
- Doctors must be social leaders and fight the progressive dehumanization of the health system.

Notes On Contributors

Eduardo Morera Serna MD, EBE-ORL, BCFPS is a staff member at the ENT Department in Son Espases Universitary Hospital. National Delegate of the European Academy of Facial Plastic Surgery and Examiner of the European Board of Facial Plastic Surgery, holds a special interest in humanities and medical education.

Declarations

The author has declared that there are no conflicts of interest.

Ethics Statement

This is an opinion paper and no ethics approval is required.

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Irina Markovina
Sechenov First Moscow State Medical University (Sechenov University)

This review has been migrated. The reviewer awarded 5 stars out of 5

As a linguist who has worked in the field of medical education for more than 30 years, I find the article brilliant. An interested, passionate, constructive opinion piece or rather personal view. I think the article is well written stylistically and is well structured. Both its style and structure make the article very dynamic and easy to follow the author's arguments. I am also impressed by the author's background, especially by mentioning the Russian names of A. Borodin and M. Bulgakov, which does not happen very often in articles written in English. The concept of the content is well thought over with the starting point being the philosophical interpretation of humanism. The author moves on to the historical outline of medicine and humanism walking hand in hand throughout centuries, and finishes with a ruthless statement of the arrival of a new dataism paradigm, which reduced the medical profession to numbers, algorithms and indices. To me as a teacher, this means that medical students are now taught more to remember that to think. I completely agree with the author that for medical educators it is not enough just to observe marginalization of humanities from the academic curricula at educational institutions. Final considerations and Take Home Message sound like an Action Plan answering the question if there is anything that could be or rather should be done. To my mind, it is one of the best articles in this issue.

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Gert Van Zyl
University of the Free State

This review has been migrated. The reviewer awarded 4 stars out of 5

I really enjoyed reading this paper and wants to give recognition to the importance of the topic and the role it has to play in health sciences curricula. We also need to acknowledge that some disciplines have progressed faster in implementation of the approach in teaching practices. Enjoyed the list of considerations. The Spain experience might not be relevant to all but still illustrates the concept well.

**Competing Interests:** No conflicts of interest were disclosed.

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Trevor Gibbs
AMEE

This review has been migrated. The reviewer awarded 4 stars out of 5

A very disheartening but passionate paper regarding the placing of humanities squarely within out healthcare curricula. The author makes some excellent points and neatly draws our attention to those well know authors, musicians etc that were also doctors. As I read that part of the papers I was also thinking if in fact they were also good doctors? - did their interest in the arts make them a good doctor. The well known UK neurologist - Johnathan Miller turned to the arts from his early days as a medical student- was he a better doctor because of that? I particularly like the 4 paragraph summary at the end of this paper. Perhaps an added section may focus around how the Humanities can bring some sanity into this crazy evolving world. A very neat, personal paper that I would encourage others to read

**Competing Interests:** No conflicts of interest were disclosed.

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Stijntje Dijk  
Erasmus Medical Center  

This review has been migrated. The reviewer awarded 3 stars out of 5  

An interesting opinion piece by a physician with a passionate call for the return of humanities not only in medical education but in primary and secondary schools as well. I couldn't agree more with this article's statement about the crucial role of role models within medicine. Knowledge in humanities can be lectured, but some skills and values cannot be delivered through word and text only - let alone be assessed in students. I wonder whether the author would see any additional role for 1) adjustments in the methods/standards for selecting students entering medical school, and 2) for assessing them before leaving it. I would, however, still like to “vouch” for the economists referred to in this paper. Although the area of health economics is much data-driven, I would argue that the core principle of the field does, in fact, has much in common with "ours". "Economics are concerned with the efficient allocation of scarce resources in society and the equity implications of such allocation. Equity and efficiency issues cannot be solved independently (Arrow. 1963)." But perhaps the solution would remain the same as the author proposes: with a more humane approach perhaps we in health would learn to understand the positive intentions behind our economics colleagues to help as many people as possible with the scarce goods that exist, and they would learn to understand the humane side of a physician's work that seeing, talking with, understanding a patient and dealing with the administrative burdens around them within a 5 minute time frame can take the care out of health care. One hope there might be for the grim future predicted in this paper is what one might find in the Human Development Report 2015: Work for Human Development. Although it predicts there are many jobs likely to be replaced by automation (telemarketers, order clerks, mathematical technicians, data entry keyers and others), many health jobs such as physicians, psychologists, dentists and oral and maxillofacial surgeons fall within the top 20 jobs least likely to be replaced. Additionally, reports such as the US Bureau of Labor Statistics Data (Turner et al 2013) do predict still predict jobs in health care to continue to be the fastest growing occupations in the upcoming year. What exact role they will play? I don't know. But as this author rightly proposes, humanities is one key difference between our work and those jobs replaceable by automatics. That means to me, this call to the integration of the humanities will be more important than ever, or our of data-driven activity will have driven us away from what makes medicine so special. Doctors must be social leaders - absolutely. They have a role to play in raising such issues as the author has raised to those around them: educators, politicians, economists, and colleagues that have an opportunity to lead by example.  

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This review has been migrated. The reviewer awarded 4 stars out of 5

The author addresses some of the important issues facing current and future medical practice. Medical practice will be increasingly dominated by technology and big data. Algorithms and artificial intelligence are making steady inroads into medical practice. The author rightly asks what will be the role of the future doctor. How will they interact with technology? Modern medicine is being increasingly driven by commercial interests and efficiency. In our medical humanities module we introduce the theme that being an empathetic physician requires time and effort and faces challenges from the modern system where time is money and lesser the amount of time spend with a patient, the greater may be the profit. The point about the humanities reducing burnout among doctors may be an important one to favor its introduction and expansion in the medical curriculum. Burnout is expensive and any measures to reduce it will be looked on favorably. The evidence base linking the medical humanities with reducing burnout should be strengthened through research.

**Competing Interests:** No conflicts of interest were disclosed.