

## DANIEL ANDLER

Emeritus Profess at Sorbonne University, member of the French Academy of Moral and Political Sciences

Thank you, Patrick. Indeed, we could almost have a chorus with the two of us talking about things, with Jacques on economics and me on ethics because they are very interlinked. I have three parts in my very short presentation. First, I will say a few general things about ethics. Then I will talk a bit about why technology changes things within healthcare and finally, I will try and show why ethics and technology do not go very well together at this point and why we would want to change that.

Ethics is important in healthcare, but not for the simple reason that people have a human right to health, and it is therefore our individual and social duty to provide it. Ethicists are not around to belabor the obvious: ethics steps in whenever the path forward is anything but obvious. As the philosopher Joseph Raz said, "Ethics seeks to give substance to the general category of the good". Now, this sounds very philosophical and abstract, but it means that all these issues we have just heard about, are issues that raise ethical issues, difficult issues that slowly but surely need to be examined.

Specifically, why is ethics central to healthcare? It is because on the receiving end are people who singly and collectively have a lot at stake, are a captive market and are vulnerable; when you are sick you are vulnerable. Because all along the chain that provides healthcare, are workers and stakeholders who have ethical exigencies and set ethical constraints of their own. And because providing healthcare is just one among competing demands on individuals, communities, and society at large.

One difficulty raised by the ethics of healthcare is conceptual. Health is a highly contentious good, subject to variable and often conflicting interpretations. Health and healthcare depend on economic, political, social and, most crucially, cultural factors. Another problem, common to all domains of human practice, is the lack of a direct route from principles to practices on the ground. And of course, as always, the ethical demands of the different stakeholders are not always aligned; ethics is a lot about dilemmas.

In the healthcare sector, ethics is also difficult to implement because on the providing end, in both public and private arenas, the budgets are enormous as are the opportunities for enrichment; because our understanding of the biological and social determinants of health are still patchy, raising issues of permissible risk; because research and clinic are intermingled yet pursue different agendas raising serious conflict of interest issues. In fact, the whole field of bioethics arose because of these conflicting views of research and the clinic. Finally, because the digital age turns governance into a global affair.



Thus, I come to my second point, technology, which is in the process of bringing about a sea change in healthcare, both, and that is quite obvious, as direct benefits for people but also, maybe less emphasized, as tools for democratic participation and ethical debate. Technology also opens the door to entirely novel practices that raise equally novel ethical issues and the more powerful the technology, the more areas it can penetrate, the more outlandish and possibly transgressive the practices. For example, think of genetic engineering, the issue of germline modification, the funding and ownership of treatments of very rare diseases, the issue of enhancement and the threat to fairness and equal treatment. Second, the commodification of DNA sequencing raises a series of ethical conundrums bearing on privacy violations and incidental findings. You could find out that you have a genetic defect and maybe your kin also have it and that was not planned, and you did not expect that piece of news. Patient consent for therapeutic and palliative use of sensors, cameras, tracking devices, robots, raise issues for non or partially competent patients; I am thinking especially of the aged. E-health can lead to the accumulation of untoward amounts of personal information on some or all members of a population with the attendant risk of surveillance and control, or unequal protection and coverage. Generalization of systems of e-health can cause increased inequalities, either because the underprivileged lack access or the minimum skills to navigate the system, or because only the most opulent sectors of the health system can afford the best up-to-date information and apps. Or, again, because personal face-to-face care might increasingly become a privilege. You have all heard of progress in intensive care technologies that lead to insoluble end of life problems. At present, the UK has 150 000 comatose patients, that it does not know what to do with except just to wait and see. Progress in neuroimaging lead to intractable problems with comatose patients. Finally, a whole set of concerns arise from the enormous costs involved in the deployment of digital systems, medical systems such as surgical robots, discovery of drugs for rare disease or vaccines against new viruses.

These issues cannot be settled in advance, nor can they be put off once the technology is entrenched; see Facebook — it is too late to turn around gracefully. They must be resolved on the fly as new possibilities arise, new expectations crystallize, new values emerge. Each step requires both broad consultation and time to be, so to speak, ethically digested and both are lacking today.

A final word about the clash between two time scales, that of technology and that of collective wisdom. At present the responsibility for developing new technologies rests on a minuscule group of people with exclusive access to the kind and amount of knowledge, power, and money necessary to compete, and who answer to virtually no one. The ongoing competition for dominance between inventors, entrepreneurs, mega corporations and countries, does not give a chance for the new forms of good to take shape. The technological race must slow down while the structural conditions and effective tools of democratic control emerge locally and globally. Asking technology to slow down is a bit like asking a tiger to go vegan, yet there are hopeful signs. There is push back. There are meetings such as this one. There are many initiatives around the world, both official and legal, constitutional, and private, that are trying to slow down this race. But much more effort will be needed to channel it towards what would be, all things considered, a better kind of healthcare.



**Patrick Nicolet, Founder and Managing Partner of Line Break Capital Ltd., former Capgemini's Group Chief Technology Officer**

Thank you, Daniel. It is always a pleasure, insightful and inspiring. I really enjoyed technology being a tiger going vegan, and it is really good to see it will make the transition on ethics on the fly.