

From the repaired patient to the augmented human being

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L’Homme par nature tend à s’améliorer mais la définition de « l’Homme augmenté » est plurielle et propre à chacun

Human beings, by nature, tend to improve themselves but the notion of “augmented human being” allows several definitions that vary from person to person

Human beings are biologically subject to augmentations as shown by the evolution of the microbiota or the immune system. However, it is also in their nature as “Homo Faber” to manufacture tools to delegate their functions. The very first illustrations of this approach described as “exosomatisation” were kinetic. They derived from the desire to externalise the human skeleton and muscles. As for now, it is the externalisation of the human cognitive function that is put into debate, with an increasingly blurred borderline between human beings and machines endowed with artificial intelligence and emotion. A disturbing turnaround may happen as the externalisation of thought could enslave human beings instead of amplifying their freedom.

The definition of the superhuman varies according to times and points of view. Some may consider that human beings are augmented by nature, whereas transhumanists hold an extreme vision of an augmented human being out of human standards. This last definition takes augmentation out of the medical field and has more to do with the fields of augmented science and ergonomics.

Nicolas Huchet, prosthesis wearer and founder of the first Humanlab in France, sees himself as a rehabilitated man rather than an augmented person. He considers himself as augmented only in relation to society’s view of people with disabilities. His high-tech prosthesis allows him to recover functions that are specific to the human body – some of which are difficult to develop with technology. In his opinion, the augmentation of human beings is more about intellectual capacities: the augmented person is the one who feels empowered.

Prostheses and technology are still not accessible and acceptable

There are two major concerns for prosthesis wearers. The first one is the question of accessibility: the technology is expensive, and its diffusion remains limited by patents. Prostheses, on the other hand, often suffer from a lack of acceptability. Indeed, the integration of numerous technological innovations in the prosthesis is not enough to ensure its acceptance by the patient. Even now, the design of prostheses lacks efficiency and requires the opinion and involvement of expert patients. Nicolas Huchet gives other patients access to technology and allows them to create prostheses with his Humanlab. This feeling of empowerment gives patients hope and the will to heal.

What limits should be applied to the use of technology in healthcare?

Certain technological and scientific advances bring us closer to an ideal or even dreamed medicine. Such is the case for genome editing, which feeds the hope of one day being able to eradicate diseases or repair defective organs by modifying specifically identified genes. For this reason, the framework for human genome editing could be more flexible than for genetic modifications in nature. However, are all the revolutions brought by technology to medicine desirable? The ability of a machine to replace a doctor is particularly questioned. Indeed, healing does not only have to do with repairing: human functions such as mental health care, dialogue and empathy are also necessary. The progressive and paradoxical disappearance of the body and speech in medicine is accelerating with the spread of telemedicine, remote consultation, and now metaverse.

As a result, the use of technology in medicine is a kind of pharmakon: it can be both saving and destroying. Innovation must not be stopped but rather framed by a vision of the future and the coming generations. Ethics by design meets this need as it consists of thinking about a desirable and shareable future from the conception of an innovation. The refoundation of a new ethics must be operated in a multidisciplinary effort integrating scientist, clerics, doctors, and philosophers. This will allow the creation and spread of a very humanist vision of the future, far from the catastrophic scenarios foreseen by the collapsology movement – a transdisciplinary school of thought that considers the risks, causes and consequences of industrial civilization.