Defining Death and Dying in Relation to Information Technology and Advances in Biomedicine

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Abstract: The definition of death is a deep philosophical question, and no single meaning can be ascribed to it. This essay focuses on the ontological, epistemological, and ethical aspects of death and dying in view of technological progress in information technology and biomedicine. It starts with the ad hoc 1968 Harvard committee that proposed that the criterion for the definition of death be irreversible coma and then refers to the debate over the whole brain death formula, emphasizing the integrated function of the organism and higher brain formula, taking consciousness and personality as essential human characteristics. It follows with the contribution of information technology in personalized and precision medicine and antiaging measures aimed at life prolongation. It also touches on the possibility of the creation of human-machine hybrids and how this raises ontological and ethical issues that concern the "cyborgization" of human beings and the conception of the organism and personhood based on a post/transhumanist essence, and, furthermore, if sentient AI capable of autonomous decision-making that might even surpass human intelligence (singularity, superintelligence) deserves moral or legal personhood. Finally, there is the question as to whether death and dying should be redefined at a transcendent level, which is reinforced by already-existing technologies of "virtual after-" life and the possibility of uploading human minds. In the last section, I refer to the current (and future) applications of nanomedicine in diagnostics, therapeutics, implants, and tissue engineering as well as the aspiration to "immortality" by cryonics. The definition of death is reformulated since age and disease elimination may be realized, and the criterion of irreversibility may be challenged.

Keywords: death, posthumanism, infomedicine, nanomedicine, cryonics

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