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“Converging technologies” arise from the combination of biotechnology (technologies applied to living systems, such as mRNA), information technology (technologies that process and correlate data with AI), cognitive science (neuroscience and neurotechnology) and nanoscience (the nanoscale technologies). The innovation brought by converging technologies is not the sum of the results of the four dimensions of science, but the result of their systemic interaction. The common goal is to contribute to the betterment of man and society.

There are “breakthrough” innovations taking place, which can on the one hand open up extraordinary opportunities for treating diseases that were unimaginable just a few years ago or improving social interactions, but on the other hand can lead (and in part are already leading) to a radical modification of man, society, and humanity in an 'empowering' sense. Think, for example, of the brain-computer interface that can enable paralyzed patients to communicate or activate a command, but also just artificially enhance mental abilities in healthy individuals.

Speed, complexity, the breadth of applications (in medicine and beyond medicine), and the blurring of traditionally distinct realms (e.g., therapy and empowerment; natural and artificial; physical and virtual) are the constitutive features of technologies that are opening a new chapter for ethical reflection as well. Some speak of "utopian dreams," others of "apocalyptic nightmares."

The theoretical debate, in its beginnings, outlined the divide between optimistic technophiles who exalt emerging technologies and pessimistic technophobes who demonize technologies. But this is not a matter of choosing between these two extremes, but of reflecting, on a case-by-case basis, on each technology and application, in order to highlight to what extent progress can be allowed and regulated from a human-centric perspective (against technocracy and technocentrism), which puts at the center human dignity and the common good of society understood in a global sense.

Ethics is called to reflect dynamically and integrally on technological design, in different contexts, with a cautious approach. The aim is to justify the limits of technological and scientific development -particularly in its radical invasive and irreversible forms. The risk is that the yearning for perfection may make one forget the natural limitation of man, who forgets himself by 'playing God'.

A reflection is crucial that puts back on the table the question of the limits of modification of man and human nature in the light of the defense of human dignity (against reductionism), physical and psychic integrity, protection of the authenticity of what is human, security and privacy, freedom against technological pervasiveness, the possibility of personal development under conditions of social and global justice with equitable distribution and fair access, and both social and environmental sustainability.

In this horizon of thought what is increasingly urgent is the formulation and implementation of new rights for humans in the era of emerging technologies, which can establish the boundaries of technological advancement.