

Introduction to Ethics in Biology, Engineering & Medicine – An International Journal

Modern medicine has been blessed with unprecedented advances during the last forty to fifty years largely due to new discoveries in biology and developments in medical technology. These new advances have extended our life span and brought improved quality of life for our patients. However, these have also brought new pressures on our limited resources and have challenged our ethical and moral values.

We must be prepared to understand and deal with the meaning of the changes that technology brings. The advancement of science will have an impact on human identity, moral perceptions, values, and traditional religious beliefs. Scientists are all, of course, a part of that debate sharing in common the culture that the science will impact. Unlike any time before, the speed of technological advancement, the possibilities, the threats to some of our cherished beliefs, are very real. What would it mean, for example, if life could be sustained indefinitely? What would it mean if we could regenerate or replace all our biological components to not only sustain life but to improve it? Suppose we could make ourselves super intelligent genetically or do so by incorporating computer parts? We could enhance sight, hearing, strength, speed and agility. These possibilities are closer than we might think.

Not only do we need to consider the impact of technology that improves the life span, viability, and quality of human life from a utilitarian or material point of view, we need to consider the impact of new knowledge in and of itself. We are now developing technology that allows us to read our minds. Some of this technology challenges our notions of responsibility, free will, and justice. Our entire legal system and the traditional beliefs that support it would be disrupted by new information that would fill the courts. Our system would not be prepared to absorb the consequences of findings that challenge our notion of responsibility, punishment, and fairness.

This is also an opportunity to guide our moral values to a higher level. We can seek to not only identify with the distress of those right before our eyes, but to also have compassion for those at great distances. We can grow to have a concern for humanity across the globe, to have a concern for the planet as a whole, and to seek a means to cooperate for greater achievements together and not simply compete among ourselves.

This journal invites the discussion to take place now about all these new possibilities, what they mean and what they can mean. In this inaugural issue are editorial notes from others that support the need for such a journal. We can determine the direction of our technology and prepare for its impact. One thing is certain. We will not be able to stop technological advancement. We can only guide and get ready for it. Ready or not, science is racing toward us. It is up to us to channel it away from a destructive impact.

We shall welcome articles on all topics related to ethical concerns and policy related issues as scientists, engineers, physicians and philosophers making new advances in biology, engineering and medicine. I am grateful to the eminent scholars who have agreed to be part of our Editorial Board and guide us to make this journal a must read source of information in this interdisciplinary field.

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