Chapter 35
Emerging Technologies as a Tool for Development of Human Values and Global Peace

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ABSTRACT

Nanotechnology is one of the unique technologies, which have the potential to narrow down the rich, and poor divide in nations. Nanotechnology has the potential to bridge the gap between developed and developing countries by developing a closer relationship to reduce involuntary sufferings. This can be testified by the proven role of nanotechnology in remediation of environment, providing health, clean water, harvesting water from air, eco-friendly housing from green nanomaterials, eradicating malaria, water borne diseases, human tissue regeneration, increasing agricultural yields, as generate innovations with embedded human values. The morally neutral threatening technologies like nanotechnology would lead to circumvent socio-political opposition, the rich and poor divide and address the involuntary sufferings by providing human value based solutions. Nanotechnology is the tool given by nature to transform the silos mentality to a collaborative mentality for real world problem solving and respond to the challenges of human sufferings.

INTRODUCTION

There is universally no accepted definition of human values despite its importance to human society and its strategic impact on engineering, science and advancement of human civilization. It may best be defined as feelings and convictions regarding what is of strong worth in our individual and collective
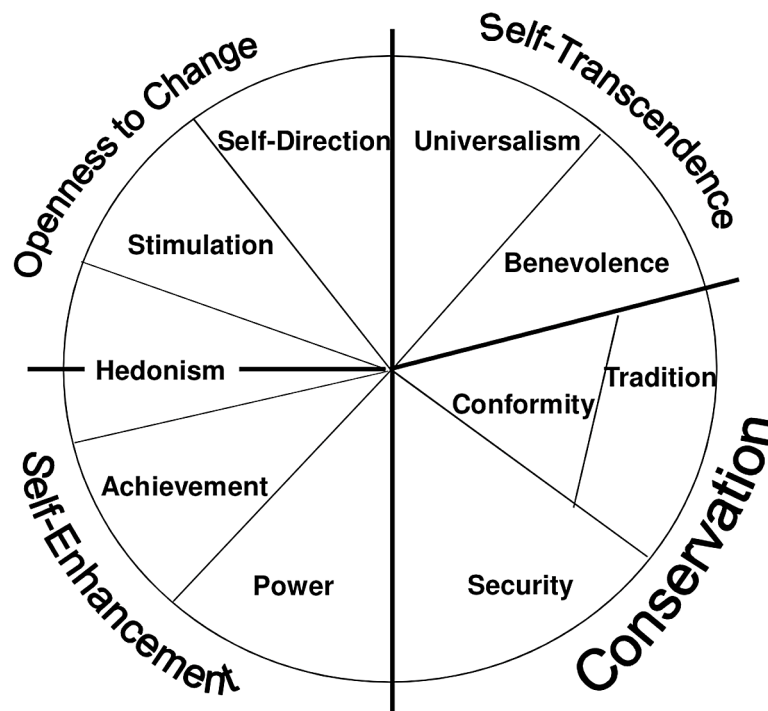
actions, values inherited in society. Ideologies and shared ethical and moral beliefs, which are the binding forces for communities. The value theory defines values as desirable, trans-situational goals, which vary in importance and serve to guide human beings in their lives. The human values have changed from time to time, with the rise and fall of different civilizations from stone age to silicon age. The impact of human values on society has been influenced by socio-economic conditions and scientific and technological growth. Basically, ten human values are implicit in the theories of the works of theorists and researchers (Schwartz, 2003; Cherchye, Ooghe, & Puyenbroeck, 2008).

The ten values are represented by self-direction, stimulation, hedonism, power, security, conformity, benevolence, tradition, universalism and achievement. A theoretical model of relations among ten motivational values is shown in Figure 1.

An analysis of the leading causes of rise and fall of powerful empires in the context of human values is essential to understand the elements which were responsible for their collapse whereas, power in terms of arms and wealth touched great heights. Unfortunately, the universalism and benevolence values simultaneously dissipated.

With the loss of these values, the elements of security social welfare, openness and self-enhancement touched their lowest level leading to the disintegration of human values and the collapse of the empires. In this process of falling of mighty empires, most of the binding elements of human values such as wisdom which governs knowledge, integrity and individual morality, physically, spiritually and meta-physically, wisdom (sound judgments and actions for a better future of society), faith (confidence in action), respect, honesty, caring and universal cooperation with a high degree of tolerance were disintegrated.

Figure 1. Theoretical model of relations among ten motivational types of value
(Courtesy: Shalom It. Schwartz, The Hebrew University, Jerusalem)

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