



## **Human Centered Development Perspective: Insights from Trieste**

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The Trieste Forum in March 2013 marked a significant milestone in the effort of the World Academy to evolve a comprehensive, integrated, trans-disciplinary perspective for addressing global challenges. An initial presentation on the physics of Dark Matter aptly illustrated the need for new thinking in the social sciences. If the most mathematically rigorous of physical sciences is compelled to postulate the existence of an unknown, invisible substance and energy representing 96% of the total matter and energy in the universe, how much more true is it that the fundamental factors responsible for the development of society are subtle, imperceptible to the senses and beyond comprehension by the present concepts of social science. In comparison to Dark Energy and Matter, the magnitude and complexity of Human Capital might well be likened to an infinite number of parallel universes (multiverse).

There was a time not long ago when human labor was valued primarily as a factor of production measurable in horsepower equivalents and substitutable by machinery. Today our conception of the human resource is far more sophisticated. Like visible matter, the physical dimension of human capital referred to as labor is only the tip of the iceberg. Our modern economic system is predicated on the principle that human beings can express their full potential only in an atmosphere of freedom where their energies can be fully released and channeled into productive, entrepreneurial and creative activities. Past WAAS President Harlan Cleveland coined the phrase 'revolution of rising expectations' to capture the central role played by the release of social energies in the post-war period. Unleashing the energy of human aspirations has been a principal driving force for the remarkable achievements of the past two centuries through progressively widening circles of liberalism, human rights and democratic governance.

As the discovery of fire and invention of agriculture transformed human life in the distant past, the immense intellectual creativity of the 20<sup>th</sup> century has dramatically demonstrated the transformative power of ideas to change the world. The human mind is our most powerful

and productive resource. An alliance of scientific research with technological innovation spurred the second and third industrial revolutions that have radically altered the way human beings move, communicate, work and live. Indeed, it is now evident that mind is the source of all other resources, for materials become productive resources only when human beings recognize their value and discover the means of putting them to use, as we have transformed the organic remains of earlier life forms into energy, plastics, textiles and life-saving pharmaceuticals.

Values are more subtle than ideas and even more powerful, for they constitute the foundation stones and pillars on which civilization and culture rise and determine the limits to which they can ascend. The emergence of universal human values based on freedom, equality and social justice has transformed our conceptions about humanity and our relationships to one another, making it almost unthinkable to recall that not long ago slavery, imperialism, apartheid and authoritarianism were righteously justified and flaunted before the world.

Human Capital is an infinitely complex microcosm capable of unlimited development. Social Capital constitutes a macrocosm of equally great complexity and potential. Side by side with the visible evolution of technology we have developed to liberate ourselves from the drudgery and limitations of physical labor, we have also been fashioning ever more powerful and effective social organizations to enhance our capacity for effective relationship. From the invention of language in the distant past to the founding of cities and the evolution of markets, money, modern enterprises, NGOs and international institutions, human history represents a continuous social experiment to harness the remarkable powers of social organization for human welfare. Today, the primary source of our wealth is no longer the field or the factory. It is the modern knowledge-based service economy, which is founded on human relationships and powered by sophisticated social organizations.

Indeed, human relationships have always been the primary source of wealth, for neither markets nor money would exist without them. The growing prosperity of the modern age is founded on conditions of peace, social stability and cooperative relationships between individuals, groups and nations within ever-widening, more closely integrated circles. The emergence of democratic forms of governance at the national and international level; modern systems of education, healthcare and social welfare; global networks for scientific research, communication and transportation constitute essential infrastructure for the evolution of global society.

The recent development of the Internet as the first truly global social organization has brought us full circle back to the most fundamental principle of our development – our relationships with one another. For the first time in history we have the capacity to fashion a global social network in which each individual is empowered to draw upon the resources of the entire world and also directly contribute to the enhancement of our collective social capacities. The fabric of society is an ever-expanding, continuously evolving, increasingly complex and effective social network.

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The quest to unravel the mystery governing the relationship between the physical microcosm and macrocosm has preoccupied physics for a century since the discovery of Relativity Theory and Quantum Mechanics. So too, the quest to discover the most effective relationship between the human microcosm and macrocosm, between Human Capital and Social Capital, promises to unleash creative powers for human welfare and well-being with momentous consequences for the future of humanity.

*“Humanity’s destiny is a matter of choice, not material determinism.”*

The individual human being is the unknown link between these two universes. The individual as member of society is a product and expression of the endowments of the collective. At the same time the individual as pioneer, leader, inventor and original thinker is the catalyst for all social progress. The individual is the source of the ideas, the energy and the values that drive human progress. As Physics continues its search for an ultimate theory of the material universe, the most important quest of the social sciences must be for a greater understanding and practical knowledge of how to most effectively fashion social institutions to unleash and channel the creative powers of its individual members for the welfare and well-being of all. The knowledge most needed today is the framework for a comprehensive science of social evolution, a science founded not only on an understanding of human nature as we observe it, but also on the realization that this potential is not a fixed constant. The laws governing society are not immutable laws of nature but principles based on the values and choices we make, which are capable of unlimited development. Humanity’s destiny is a matter of choice, not material determinism.

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The world is in search of the social equation that provides maximum freedom for the individual to release and express his energies productively and creatively within a social organization that ensures equity and promotes the maximum welfare of all its members. Some essential elements of that ultimate social equation are already known. Freedom is essential, but freedom without regulation to ensure equitable standards of fairness and reciprocity quickly degenerates into license and self-destructive egoism. Unregulated markets lead to unsustainable levels of inequality, concentration of social power and governance by plutocracy. The challenge we face is to balance and reconcile the individual and collective dimensions of this formula.

We know also that extending basic human rights to all human beings within a framework of democracy and rule of law is an essential requirement. This includes social and economic as well as political rights. In modern society, access to employment is the economic equivalent of the right to vote in democracy. In order to develop and release the full poten-

tial of future generations, the right to employment must be guaranteed. This is an essential condition for social justice and the preservation of social stability. As Jasjit Singh reminds us in his paper “Revolution in Human Affairs: The Root of Societal Violence” published in *Cadmus* Issue 2, unfulfilled rising expectations can quickly degenerate into rising levels of frustration, social unrest and violence. Human security, human welfare and well-being go hand in hand. Democracy must also be extended from the national to the international sphere. Undemocratic institutions of global governance preserve rule by the most powerful, which is incompatible with global rule of law. Law is the codification of the public conscience. The prevailing concept of national sovereignty, which is claimed by all states regardless of their mode of domestic governance, is itself a denial of the sovereign rights of the global human collective.

Education is the most remarkable of all social institutions, for it is the instrument humanity has fashioned for conscious social evolution. Education is the means for endowing each individual member of future generations with the essential knowledge accumulated by the collective experience of countless past generations, so that the youth of tomorrow can start off and advance further from the highest point attained by humanity until today. Although quantitatively more and better education has been extended to more human beings than ever before, we are still a long way from achieving the goal of universal coverage and raising the level and quality of education from the minimum to the maximum. Moreover, our system of education still largely regards human beings as vessels to be filled with information rather than living, thinking, creative human beings who must be encouraged to fully develop their talents and capacities. Education as a social science is still in its infancy. It has achieved the capacity for mass production. It has yet to acquire the capacity for customization adapted to the unique endowments and potential of each individual. When that is achieved, the now rare geniuses in enterprise, invention, science, thought and the arts may become commonplace.

Mind is the instrument through which we seek knowledge and the characteristics of human mentality impose practical limits on our rationality and effective knowledge. Foremost among the dominant tendencies of the human mind is the propensity to divide reality into smaller and smaller components, while losing sight of the whole which is more than the sum of its parts. Finance needs to be reintegrated with economy. Markets need to subserve human welfare. The narrow boundaries of economy need to be extended to reflect continuously evolving relations with the non-monetarized sector, its fundamental dependence on law and government, the ecological continent on which it is based, and the social context in which it functions. The interdependence of money power, political power and social power must be reconciled within a single formulation.

Another prominent characteristic of our mentality is its tendency to formulate abstract words, concepts and symbols to represent reality and mistake the abstract symbol for the reality it only imperfectly represents. Like the advocates of neoliberalism, we often mistake theoretical constructs for practical truths or misapply concepts of the physical sciences to the human sciences in which conscious awareness and volition replace the automatic mechanism of physical nature. Survival of the fittest may well be the law of the jungle but cooperation for mutual benefit and dedication to higher principles and goals are the foundations of civilization and culture and those that most distinguish human beings from our animal predecessors.

Future social science must encompass all the dimensions of human life – political, economic, organizational, technological, social, psychological, cultural and ecological – as aspects of a single integral reality. All facets of the complex multidimensional development of human society are founded on more fundamental processes of human development. The quest of social science is not for impersonal knowledge but effective power and the only legitimate power science can seek is the power to realize the welfare and well-being of all human beings. For that it must become a purposeful and value-based body of knowledge reintegrating science with philosophy, ethics and spiritual values. Let us recall that Adam Smith was a moral philosopher in search of an effective formula to promote human welfare, not an impartial natural scientist in search of impersonal universal truth. Economic value is inseparable from human values.

Growing awareness of humanity's relationship to the environment has been a crucial turning point in our awakening to greater self-consciousness. The dream of unlimited material production and consumption confronts an impenetrable wall resulting from the depletion of precious, non-renewable material resources and the destructive impact of unbridled, wasteful human activity on the biosphere. Economic value must also reflect ecological value. So also, human security cannot be assured so long as both humanity and the ecosphere are threatened by the calamitous prospect of accidental or intentional nuclear detonations. The very existence of nuclear weapons on earth represents an existential threat to civilization.

But the really confining limits are not material or technological, but conceptual. For human ingenuity has amply demonstrated the capacity to produce more from less. The scope for further increasing the productivity of available resources is enormous. The real barriers are the limits imposed by prevailing ideas and values. We are unwitting and unknowing prisoners of our own conceptions. The greatest need of humanity today is for creative leadership in thought that challenges the conventional wisdom and dogma which often masquerade as scientific knowledge. Society as it functions today is the product of past experiences, developed power structures and vested interests which present an inertial resistance to our future evolution. The want of leadership or political will so often lamented is founded on outmoded concepts, beliefs and values waiting to be challenged, exposed and reformulated. The political will and power to abolish slavery and end colonialism had to first attack the intellectual foundations on which these archaic institutions were based. Courageous leadership in thought must precede effective leadership in action.

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Beyond all that we know and conceptualize lies a limitless vista of uncertainty. From this domain issue ever new challenges to our knowing and our security. Uncertainty in physics is the basis for all physical systems: molecules, atoms, even nuclei, would not exist without uncertainty. The uncertainty in social systems is even greater, for the laws governing society and its development constantly evolve, whereas the laws of the physical universe have remained unchanged for billions of years. Black swans are an ineluctable characteristic of social life. In a sense, all human action is an endeavor to manage risks and conquer uncertainty by greater knowledge and more effective social organization. But it is a never

ending quest. For the very uncertainty in human systems which is the source of the ignorance and insecurity we seek to eliminate is also the source of new ideas, inspiring values, marvellous innovations, more abundant wealth and richer creative potential that are the product of evolving human consciousness. Uncertainty is only another term for the Unknown or the Unknowable, which is our future destiny. Our evolutionary conception needs also to embrace this limitless, indefinable source of human potential.

Viewed from this emerging perspective, the multiple individual lines of the World Academy's programmatic activity imaged below coalesce to form the first vague outlines of an integrated intellectual framework for understanding and addressing the opportunities and challenges facing humanity in the new century.

**Figure 1: The World Academy's Programmatic Activity**



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