



Uncorking the Future: Transitions to a New Paradigm

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Abstract

This article explores issues discussed at three recent WAAS events regarding the process of transition to a new paradigm. The prominent institutions and policies governing the present paradigm are founded upon a bedrock of ideas and values and an abstract, reductionistic mode of analytic thinking detached from people and social reality. Escape from the present blind alley and transition to a new paradigm require adoption of a different way of thinking that is human-centered, value-based, inclusive and synthetic. The multidimensional challenges confronting humanity today are the consequence of precious opportunities missed at the end of the Cold War. At the same time the awareness and energy released by these challenges has the potential for converting current challenges into unprecedented opportunities for progress at the global level. The outcome depends on our capacity to discover the complementarity underlying apparently contradictory, opposite viewpoints. Multi-culturalism is at once the source of intense frictions and conflict and the rich genetic potential from which a new paradigm can emerge. A new paradigm requires a deeper understanding of the cultural underpinnings of democracy, a rational examination of the sacred cow of national sovereignty, and explicit recognition of the social responsibility of science for the consequences of scientific discovery and technological innovation. Leadership will play a crucial role in determining the outcome – intellectual leadership at the level of ideas, scientific leadership that exhibits consciousness responsibility, transformational leadership at the level of international institutions and nation-states.

To our normal perception, the future is like a one-way mirror. Looking forward from the present, it is impenetrable and blocks our vision of what is coming. Like a rear-view mirror, it presents a reflection of where we have come from through the lens of our prevailing ideas, beliefs and past experience. Looking backward from the future, we perceive the unfolding sequence of events as a logical consequence of causal determinates emerging out of the past that appears natural and almost inevitable. We are all blind in prospect and visionary seers in retrospect. In March 2015 WAAS and the World University Consortium conducted a brainstorming workshop at Dubrovnik to frame the outlines for a trans-disciplinary course on transformational leadership. In April 2015 the World Academy co-organized important conferences in Kiev and Baku – the fourteenth and fifteenth in the last three years – exploring

prospects for transition to a new paradigm.* These events sought to break some of the perceptual barriers posed by one-way mirror vision and to peer into the future through the cracks in its surface.

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1. Challenges are Opportunities

Today humanity confronts multidimensional challenges of unparalleled magnitude, complexity and consequences for current and future generations. The intensity and urgency of these challenges are magnified by rapid globalization, the accelerating pace of social change, exponential rates of technological innovation, and the increasingly extensive and intricate web of inter-linkages and interdependencies between people, institutions and aspects of life everywhere.

This is also a period of unprecedented opportunities for humanity. The momentous potential of these opportunities has been multiplied and magnified by the global spread of democracy and human rights, rising levels of education, increasing interconnectivity, soaring aspirations and other catalytic deep drivers. The consequences of these challenges and opportunities will depend entirely on the way we respond to them.

Looking backward, we sometimes observe dire challenges morphing into unanticipated opportunities. The US Civil War was ostensibly fought over the issue of whether slavery should be prohibited or permitted in new states being formed out of the westward expansion across the North American continent. But the deeper issue at stake was whether the young American union would remain a weak confederation of states or splinter into two or more independent nations. For several years permanent secession by the Southern states appeared the most likely outcome. Either way, slavery would have eventually been abolished, as it was elsewhere around the world. But had the early Confederate victories garnered the full support of European buyers eager for Southern cotton, the USA today might more closely resemble the semi-independent states of Europe that are now struggling to overcome their differences to build a strong federal European Union. Eventually the tide of military and economic might turned in favor of the North, national unity was preserved, slavery was abolished and a strong federal system replaced the weaker association of states that preceded the war. By the end of the 19th century, America had become the largest and most prosperous economy in the world. Following the two world wars, it became the most powerful nation militarily and politically

* The international conference on “The State of the World, Need for the New World Paradigm and Role of Ukraine in it,” organized by the World Academy of Art and Science, Bohdan Hawrylyshyn Charitable Foundation and World University Consortium, was held in Kiev, Ukraine, on April 25, 2015. The other conference held on April 29-30, 2015 in Baku, Azerbaijan, titled “Framework for a New Paradigm of Human Development” was organized by the World Academy of Art and Science and the Nizami Ganjavi International Center.

as well. A challenge to its very survival was converted into an opportunity for America to emerge as world leader.

In modern times the devastation of two world wars was converted into the foundations for two of the most important events in human history. First was the founding of the UN in 1945 to transform a world governed by a precarious balance of power and military might among a few imperial European empires into a world governed by a global organization of sovereign nations, rule of law and universal human rights. While it has failed to live up to its highest aspirations and proclaimed ideals, the establishment of the UN has successfully avoided onset of a third world war, created a global network of international institutions and forged a global community of nations based on shared values and goals.

The second remarkable event was the founding of the European Community and the European Union, which have successfully forged nations which had fought with one another incessantly for centuries into an entirely new type of transnational organization dedicated to promoting peace, harmony and prosperity for their culturally diverse populations. The critical task before us today is to transform the ominous challenges confronting humanity into positive catalytic forces for rapid evolution to a new paradigm.

Problems can be converted into opportunities. It is equally true that opportunities missed can become problems. The world missed an unprecedented opportunity at the end of the Cold War. It missed the opportunity to develop an inclusive, global economic system that promotes the security, welfare and well-being of all human beings. It missed the opportunity to completely abolish nuclear weapons that still pose an existential threat to humanity. It missed the opportunity to transform a competitive security paradigm consisting of exclusive and competitive military alliances into an inclusive, global cooperative security system ensuring peace and security for all nations. It missed the opportunity to fully extend the principles of rule of law and democracy to the institutions of global governance. It also missed the opportunity to convert the impending environmental challenge into a bonding agent to unite humanity against a common enemy that can only be defeated by global cooperation on an unprecedented scale.

Instead, 25 years later we find a global economy that is much larger but more unstable and uncertain in which poverty persists for billions of people, unemployment is rising to near record levels and economic inequality everywhere is returning to heights not reached since the 1920s. The number of nuclear weapons states has proliferated and the role of nuclear weapons in military doctrine is on the rise. The euphoria that followed the end of the Cold War is morphing into what has been aptly termed as “Cold Peace” in which the USA and its European allies are once again in confrontation with Russia, while the Middle East and North Africa are shaken by increasing levels of instability, and the growing assertiveness of China is raising notes of alarm in the Far East. Cultural and religious tensions and open conflict are on the rise even in the heartland of liberal Western society. Lip service is given to ecological concerns while water resources dwindle, temperatures warm and urban pollution endangers huge populations.

Why did we fail to seize the opportunity? Why couldn't we make it happen? Many explanations can be given. The persistence of old rivalries, prejudices and suspicions vitiated the expansive atmosphere following the fall of the Berlin Wall. Forgetting that the end of the Cold War was largely prompted by voluntary internal changes behind the Iron Curtain, some Western intellectuals prematurely proclaimed the final victory for capitalism and democracy and the end of history itself. The fall of the first twin tower was interpreted as ultimate triumph of the tower that remained standing but soon began to totter as it leaned toward neoliberal extremism that dismantled the regulatory environment which had stabilized and democratized capitalism during the 20th century. Political theorists mistaking the mechanical apparatus of free elections for the liberal democratic culture which constitutes its heart and soul pressed to impose that mechanism on societies that were politically, administratively, socially and culturally unprepared and ill-equipped for sudden transition. Former communist oligarchs presided over the largest theft of public property in history. Following a radical 33% fall in global defense spending after the Fall of the Berlin Wall, reactionary politicians wedded to a Cold War mentality and vested interests in the military industrial complex found ways to hike up defense spending to record levels. In spite of the movement toward unification in Europe, national governments clung to outdated concepts of sovereignty that predated the Enlightenment and the democratic revolutions of the past two centuries. Financial institutions and speculators plunged head first into the vacuum created by the new Wild West of unregulated global financial markets causing a rampage of instability that undermined economies and destroyed millions of jobs around the globe. A plutocracy of money power progressively replaced the dogma of political ideology in both East and West. The five permanent members of the UN Security Council clung possessively to the special privileges they had accorded to themselves as the victors in WWII.

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For the past quarter century the increasingly globalized human community has drifted in a rudderless boat without compass or captain, giving literal meaning to the idea of a world in which nobody is in charge. Everywhere people sought for visionary leaders with the capacity to transform challenges into opportunities and potentialities into reality. With few exceptions they have been sorely disappointed. Politicians have found no difficulty in pointing fingers at domestic opponents or foreign conspirators. Multicultural liberal societies have descended back toward the intolerance of bygone eras. Yet these outcomes were neither necessary nor inevitable.

Many agree with the assessment of former Slovenian President Danilo Türk that international institutions have become victims of a powerful conservative tendency to maintain stability rather than evolve to keep pace with the needs of our times. That is why social evolution commonly occurs at the periphery where society is less organized and rigidly fixed in its ways. The emergence of the World Wide Web represented a momentous advance, sprouting up out of nowhere and rapidly developing into the first truly global social organization without any apparent plan or purpose. The development of new global business models, the proliferation of international civil society organizations and the very recent expansion

of on-line educational institutions are other examples of this principle. The world is more organized today than ever before, yet the central institutions that humanity looks to for global governance and rule of law appear increasingly incompetent and impotent.

2. The Intellectual Foundations of a New Paradigm

All these factors have contributed to the gross failures and missed opportunities of the post-Cold War period. But none in itself or in combination with others is sufficient to expose the root cause of these failures. For that we need to look beyond specific events, policies, institutions, vested interests and competitive nationalism to the underlying set of ruling ideas on which the current paradigm in human affairs is founded. The world we live in is an expression of the ideas we believe in. The limitation in our thinking manifests as problems in our living. The failures of our policies and institutions are founded on failures of thought and conception. As Einstein said, "We cannot solve our problems with the same thinking we used when we created them." Ideas have the Power to change the world, as Jean Monnet's dream became the living seed for the united Europe that acquired concrete reality after his death.

A new paradigm must be based on a new set of concepts and values attuned to the future we seek to uncork. It requires not only different ideas but also a new type of thinking that differs in essential ways from that which now prevails. First, the new thinking must be human-centered. That means all its premises and conclusions must be judged from the perspective of how far they serve human needs and how far they develop and unleash human potential. A blind faith in the magic of the marketplace, technology for the sake of technology, growth for growth's sake, the sanctity of national sovereignty and expediency of balance of power on which the present paradigm is founded are instances of mechanistic Newtonian thinking based on the supposed action of universal laws of social nature similar to the natural laws which have long been the pursuit of the physical sciences. But the principles governing human society are not creations of Nature or bound by immutable laws. They are creations of human beings which can be altered by conscious choice and made to function differently and better. Our task is not to discover immutable laws of social nature and adapt to them, but to formulate social principles that maximize the welfare and well-being of human beings. If faith is to play a role in the new paradigm, then it must be faith in the unlimited potential of human beings for innovation, creativity, development and evolution.

When Franklin D. Roosevelt assumed office as US President in 1933, he inherited America's worst-ever banking crisis, which had already resulted in the failure of more than 6000 banks. Millions of Americans had to line up at the banks to withdraw their hard earned savings, plunging even sound financial institutions toward bankruptcy. Conventional Economics offered no good solution to a financial panic of this intensity. FDR rejected as useless the economic theory he had learned at Harvard. Instead he went on nationwide radio and appealed directly to the American people. He understood it was the people who had created the panic by their loss of confidence in the system and it was only the people who could reverse it. He reminded Americans of the rich productive potentials of their country, the courage of their immigrant forefathers who risked all to come to the New World, and the can-do spirit of self-confidence that had made America rich. He correctly diagnosed

the real problem. “We have nothing to fear but fear itself.” And then he asked Americans to return to the banks and redeposit their savings. A change in perspective halted the panic. It was stopped by a man who understood that economics is a human science. It is this type of thinking that prompted US President John F. Kennedy to assert three decades later, “Our problems are man-made, therefore they may be solved by man. And man can be as big as he wants. No problem of human destiny is beyond human beings.”

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Second, the new thinking must be overtly and explicitly value-based. For long the social sciences have sought to mimic the code of value-neutrality and detachment achieved by the natural sciences in their observation of physical phenomenon in quest for objective knowledge for the material universe. The natural scientist is not expected to judge nature, but only to observe and understand it as it is. Karl Popper warns us against applying a similar approach to the social sciences, terming it ‘misguided naturalism’. The primary aim of the social sciences is and must not be truth *per se* but knowledge that promotes the welfare and well-being of human beings. The objective is not value neutrality that judges all phenomena as equally acceptable, but knowledge that strives to advance realization of values universally affirmed by world civilization and culture – freedom, peace, harmony, tolerance, justice, equality, integrity and truthfulness. In fact, social science has always been and must necessarily be value-based, but very often those values have been cloaked as universal laws to give them the guise of respectability of scientific truth. Democracy is not merely an amoral, mechanistic system of governance that can be installed by technical experts and function like a computer straight out of the box. True democracy is founded on a human social culture based on liberal values of freedom, tolerance and harmony that evolved in the West centuries before the right to vote and social equality became prevalent. Contemporary Economics is founded on a narrowly defined concept of efficiency that ignores the devastating costs to society of rising levels of unemployment and inequality and the ravaging environmental destruction resulting from pollution, resource depletion and climate change. Human labor is considered a dispensable, disposable resource. Rising levels of crime, drug use, social alienation and violence are dismissed as externalities. Education is accounted for as a cost rather than an investment in development of human capital. An economic system that deprives people of freedom of choice, security, opportunities for gainful employment and self-respect is unacceptable, even if it were to achieve remarkable heights of economic efficiency. As former Greek Prime Minister George Papandreou expressed at the Baku conference, “We

need to humanize global capitalism. We need to humanize our technologies to make sure they are used, not abused.” And to humanize the economic system in practice we must first humanize the values which it seeks to realize.

Third, the new thinking must be inclusive, holistic and ecological. Our problems are too complex and deeply rooted in history to be resolved by any such simplistic, reductionistic analysis. The new thinking must dispense with the expediency of dividing reality into tiny fragments and contrary viewpoints. It must be capable of embracing a more complex, sophisticated view of reality that can discover the truth and reconcile the differences between myriad points of view. The conflicts between neoliberalism and neo-Keynesianism, Russia and the West, Islam and the West, readily lend themselves to diametrically opposite worldviews, each denying validity, relevance and even a fair listening to one another. The Russian annexation of Ukraine is not justified by also conceding the folly of Ukrainian nationalists who sought to diminish the cultural rights of its huge Russian speaking minority. The failure of world powers to respect the security guarantees given to Ukraine when it agreed to abandon its arsenal of nuclear weapons does not legitimize the fact that for two decades after independence corrupt Ukrainian oligarchs enriched themselves while refusing to institute the essential reforms needed to democratize and modernize their young nation. As former Polish President Aleksander Kwasniewski reminded three former Ukrainian presidents in Baku, “Ukrainian reforms are essential for national cohesion, peace and security.” It was heartening and exhilarating to hear leading businessmen, public figures and educated youth at the Kiev conference acknowledging their nation’s errors and omissions and willing to accept their responsibility for building a transparent, multicultural, democratic society. Initiatives such as that of the Bohdan Hawrylyshyn Charitable Foundation are in the process of equipping a new generation of leaders with the intellectual capacity, values and determination to transform the nascent nation into a model for others to follow.

Fourth, the new thinking needed must be synthetic. As Roberto Poli pointed out, we seem to have lost the capacity to educate generalists capable of dealing with the complex problems confronting humanity today. We have to nurture the mental capacity to see beyond the dualities and reconcile apparent contradictions as complementarities at a higher level. Great discoveries in the natural sciences have been the result of insights that unified phenomena that had previously appeared unconnected or opposite in character. Thus, James Maxwell discovered that electricity and magnetism were two expressions of the electromagnetic force. Einstein’s equivalence principle unified acceleration and gravity. The new paradigm needs to conceive of an economic system that reconciles the creative energies unleashed by individual freedom provided by markets with the regulatory framework needed to provide security for all citizens, preserve social harmony and equitably distribute the collective fruits of modern society to all members. Similarly, the notion of national sovereignty must be reconciled with the equally legitimate claims of citizens for democratic rights, of minorities within states to preserve their distinct cultures and of humanity as a whole for an equitable sharing of the global commons. The new thinking must not merely recognize the legitimacy in opposing points of view. It must rise above the divisive perspective of competitive, nationalistic consciousness to acquire a global perspective and vision of emerging global opportunities.

3. Clash of Civilizations or Cultural Diversity

The discussion in Kiev and Baku highlighted both the immense challenges and momentous opportunities resulting from cultural diversity. Contact and conflict between diverse cultures are as old as human history itself. In retrospect we might characterize the entire process of human social evolution as a movement of innumerable isolated, distinct cultural groupings coming into contact and conflict with one another, defining themselves by their differences, expanding and transforming themselves to incorporate new ideas and values, simultaneously attracted, educated, threatened and enraged by their contrasts – a process that culturally enriched both conquerors and the conquered, those self-proclaimed as more advanced and those deemed only as passive beneficiaries.

It is virtually impossible to formulate a thought or perform a simple act without drawing on the rich cultural inheritance of ideas, words, concepts, objects, tools and technologies which constitute the collective dowry of our ancestors to all humanity. To write the answer to a simple financial problem, we utilize a system of numbers, the concept of zero and the decimal point fashioned in ancient India, the idea of money traced back to ancient Greece and the invention of paper in ancient China. Like the genetic diversity of living organisms, our rich cultural diversity is the source of unlimited creative potential. Until now we have harvested only an infinitesimal fraction of that potential.

Yet the rapid pace of globalization, massive movements of people and products, the lightning speed of human interactions have created what Alexander Likhotal aptly terms a tectonic ‘time-quake’ that threatens to divide families and communities from one another, tear nation-states apart at their seams, and convert whole regions into boiling pots of tension and violence.* In spite of our common collective inheritance, in times of trouble the first response of human beings is to shrink back into shells of isolation, to withdraw sympathies from those who are different, to find scapegoats that exonerate us from blame. Fascism has only exploited a universal human characteristic that is straining the bonds of cooperation that internally and externally unify the mature nation-states of liberal Europe today. Similarly, in times of untold opportunity our first instinct is usually to seek for our own reward and compete with one another for the fruits, even when there is more than enough to benefit all, even when we can all benefit most by cooperative effort. Human relationship and cooperation are the fundamental basis, building blocks and cement for all lasting human achievements. Yet the narrow, egoistic, selfish impulse is always ready to rear its head, claim credit and just desert for a larger share of power, wealth, resources, culture, virtue, spirituality and every other thing of value.

Nature seems to be engaged in a vast experiment of global dimensions to study the creative potential and reactive consequences of contacts between diverse cultural elements. America is its experimental melting pot, where countless generations of people from the world over have poured their different ideas, aspirations and resourcefulness into a common pool. India is another great experiment in linguistic, religious, ethnic and cultural diversity,

* Alexander Likhotal, in his oral commentary on the Future of Russia-West Relations at the Third Global Baku Forum on “Building Trust in the Emerging World-Order”, organized by the Nizami Ganjavi International Center, Baku, April 28, 2015.

which existed for millennia as a myriad assortment of politically independent princely states partially and occasionally united into empires, but united only by a common culture founded on tolerance and patience. In between these extremes of diversity we can find innumerable variations on a common theme. Looking backward we can only marvel at how much humanity has garnered from this rich diversity, which has at once been the source of the major conflicts between people, nations and civilizations in the past.

Living in a multicultural world is at once humanity's greatest challenge and its greatest opportunity. It is impossible to live without it. Were it possible for us to return all that we have borrowed from others, the wealthiest of nations would be reduced to poverty and the most enlightened to utter ignorance. We cannot seem to live harmoniously together yet it is impossible to live either physically or culturally apart.

More fundamental than the political and economic systems which it may embrace, the new paradigm must above all evolve a reconciling, synthetic formula for co-operative and mutually beneficial co-existence in an increasingly integrated, culturally diverse world. The prevailing ways of thinking only magnify and multiply the problems. We need a new way of thinking to forge a new paradigm for a multi-cultural world. Human-centered thinking can remind us that it is not our differences but our common humanity that is of central importance. Value-based thinking can reveal to us the precious cultural reservoir possessed by diverse cultures. Inclusive thinking can enable us to perceive the valid truth in viewpoints diametrically opposite to our own. Synthetic thinking can show us ways to reconcile the apparent contradictions of freedom and authority, rights and responsibilities, rationality and emotions, individualism and social unity.

4. Consciousness Responsibility of Science

At their core, paradigms are constructed from a subtle, intangible fabric of ideas, beliefs, values and perceptions that acquire perceptible shape and increasingly solid form as they are translated into institutions, policies, activities and ways of life. The 70,000 nuclear weapons armed and ready for launch during the Cold War were a tangible, concrete expression of a set of ideas and perceptions founded on an internally consistent set of arguments that now appear as utter madness and folly from the perspective of the present day. Yet a quarter century after their *raison d'être* has vanished, 10,000 nuclear warheads remain and 4000 are on active alert. Ideas have power.

One of the powerful prevailing ideas governing the current paradigm concerns the social responsibility of science. The World Academy was founded 55 years ago by eminent intellectuals deeply concerned about the threats posed by the rapid development of science and technology. Among them were individuals such as Einstein, Robert Oppenheimer, Joseph Rotblat and Bertrand Russell, who played a direct role in the creation of nuclear weapons or in the early debate regarding the morality of their use.

Modern science inherited from its predecessors the Cartesian notion of the scientist as impartial, passive, detached observer of phenomena, rather than as an active agent in the workings of Nature. Quantum theory laid to rest the scientific illusion of separation between

human beings and the world around them. Indeed the world we live in today is so directly and powerfully the product of scientific and technological development that any claim to the contrary appears otiose. Yet, the myth of scientific detachment persists. The development of birth control technologies and genetic engineering of plants and animals has fueled intense debate in recent decades.

The pace of scientific and technological advances has now become so rapid, that it is far outpacing the capacity of human civilization and culture to control its applications, anticipate its consequences or govern its processes. The Baku conference posed salient questions: What should be the responsibility of science and government for ensuring that science and technology are applied in a manner that promotes human security, welfare and well-being? Keeping in mind both the positive and negative aspects of science and technology in society, how, and by which means, do you foster the positive contributions and deter the negative ones? What role, if any, should government play?

Roberto Peccei emphasized the dual characteristics of S&T that make it so difficult to arrive at appropriate answers to these questions. S&T has been instrumental in bringing about enormous improvements in quality of life over the last two centuries. At the same time it has resulted in serious problematic developments, such as the creation of nuclear and chemical weapons. Scientific findings such as genetic engineering and human cloning raise significant ethical questions for society. Continued investment in S&T is required to address serious problems such as Ebola and climate change. At the same time unregulated development and application pose real and present dangers that tangibly impact on the lives of millions of people. Recall that in recent decades two Nobel Prizes were awarded for the development of computer algorithms that have destabilized global financial markets and destroyed untold wealth. When reflecting on the role of science and technology in our world, it is important to be aware that they have these dual characteristics.

The issue is further complicated by the fact that the ultimate outcome of scientific research is often unpredictable. The Internet eventually arose from a US defense research program funded by the US Government and the World Wide Web was invented by an engineer at CERN, whose idea of a more effective communication system consisting of a network of interactive computers using hypertext was initially rejected by his supervisors as without significant value.

Governance of the potentially disruptive impacts of science and technology on civilization and culture has become urgent and acrimonious, but has so far defied simplistic solutions. Scientists affirm that importance of freedom in their quest for knowledge of the universe, while often dissociating themselves from the worst abuses of scientific knowledge by governments, corporations or terrorist groups. The pros and cons are easy to identify. An appropriate synthesis has yet to emerge. Like economy, science is only a part of society and needs to be viewed within the wider context of its overall impact on human beings, rather than as an independent compartmentalized activity. Momir Djurovic proposed that the social sciences could play an important role as a filter influencing how the natural sciences are applied.

One essential element in a final reconciling solution must be recognition by scientists of their social responsibility for the consequences of the discoveries and inventions they generate. That responsibility does not stop with the publication of their findings. It must, as it did for the founders of WAAS, extend beyond their immediate personal activities to the wider consequences issuing from their actions. It must be a responsibility that applies not only to the actions of scientists but also a responsibility in consciousness that makes them active agents committed to ensuring the right use of the knowledge they generate.

5. Nurturing Transformational Leaders

The world needs leadership in thought to shape the contours and identify important components of the new paradigm. But conception is only the first step in the process of creation. That conception needs to be energized by the aspiration, charged by will and enlivened by emotion until it acquires a self-organizing power for self-realization. Leadership is needed at this stage to awaken hope, inspire confidence, and generate the kind of determination young Ukraine is now striving to acquire. Ultimately, the quest for a new paradigm must be a transition from thought to action. So we also need leaders with courage, capacity and experience for bold, dynamic skilled action.

Thus, we are inevitably led to ask, “Where are the dynamic, visionary, transformational leaders needed to lead the transition to a new paradigm?” The role and process of leadership were explored in a four day WAAS-WUC workshop at Dubrovnik during March 2015 discussed in the article by Janani Harish entitled “Leadership for a New Paradigm in Human Development” published in this issue of *Cadmus*.¹ The workshop was intended to serve as the foundation for development of a trans-disciplinary course on transformational leadership.

Are great leaders born or made? This is another form of the old debate about Nature and Nurture which has long been applied to entrepreneurs, artists and intellectual geniuses. In recent decades genetics and biochemistry have been used to bolster the claim of Nature. If leaders are born not made, how can we explain the fact that great leaders only seem to appear at critical moments in history? At the birth of the USA, America was blessed with a remarkable array of talent – Washington, Franklin, Hamilton, Adams, Jefferson, Madison and Monroe. Over the following two centuries, why is it that even a single American leader of comparable stature has only rarely emerged? The birth of Indian Independence was achieved by a comparable galaxy of greatness – Sri Aurobindo, Gandhi, Nehru, Patel, Rajagopalachari, Tilak, Bose and others. Churchill was a leading public figure for decades, but he rose to the status of a great leader only after leading the Allies to victory in WWII. As in most cases, the truth is both simpler and more complex. Nature generates capacity in potential. Environmental circumstances create the challenges and opportunities that stimulate the activation and emergence of potentialities dormant beneath the surface. And what is true of political leaders, entrepreneurs and geniuses is true of human beings in general. Humanity may never produce greater minds than Socrates, Leonardo and Newton, but it can certainly become much more successful in nurturing full development of the human potential in every citizen and fostering its expression. Whatever their failings, modern democracy, human rights and education have proven to be more effective instruments for activating and developing human potential.

Leaders are neither entirely made in a crucible nor sired by a quantum vacuum. A great leader is at once a child of the times and a wet nurse of the future. In 1987 someone asked Soviet President Gorbachev what was the difference between his program of Glasnost and Perestroika and the Prague Spring of 1968 initiated by the reform-minded Czech leader Alexander Dubček. Gorbachev responded, “Nineteen years!” Gorbachev was among the young Soviet leaders inspired by the six month period of peaceful liberalization in Czechoslovakia, until it was so suddenly and violently suppressed by half a million Soviet and allied troops. That movement re-emerged in 1989 as the Velvet Revolution that ended Soviet rule. Even earlier as an idealistic communist youth leader, Gorbachev had witnessed the Hungarian Uprising of 1956 and its brutal suppression. Three years before that, Soviet Premier Khrushchev shocked the USSR with his public denunciation of the atrocities committed by Stalin. As an individual, Gorbachev was a bold idealist, but his ideas and actions were molded by the aspirations of his countrymen long suppressed by Soviet terror and by his identification with the deeper aspirations of humanity-at-large to end the madness of the Cold War. In the words of his former aid Alexander Likhotal, Gorbachev helped to uncork the future rather than to invent and construct it.*

Just two days before the fall of the Berlin Wall, Gorbachev, German Chancellor Kohl and US President Bush conferred and speculated that it might be a generation or more before German unification would be possible. It became a reality less than one year later. Their intimate knowledge of circumstances and events did not enable them to pierce the thin veil that concealed the remarkable events that unfolded.

The sudden onset of radical transformations such as the end of the Cold War, reunification of Germany and the explosive growth of the World Wide Web are instances of what Nassim Nicholas Taleb refers to as black swans – very rare events with huge impact that appear highly improbable until after they occur. Such phenomena are presented as evidence that the world has become increasingly uncertain and unpredictable, like the behavior of subatomic particles according to Quantum theory. The analogy has some validity. For although the individual behavior of particles is highly unpredictable, their collective behavior conforms with remarkable precision to the laws and formulas of Quantum Mechanics. The precise place, time and sequence governing human social evolution may appear equally difficult to predict, but the direction and long term trends follow the curve of emerging human aspirations and awakening human consciousness. Uncertainty is the flip side of infinite possibility. Rather it is the appearance that possibility takes until it reveals its potential. One way mental mirrors blind us to the opportunities and fill us with dread of our own reflection.

6. The Shape of Things to Come

The world we live in today is a multidimensional paradigm built upon successive layers of political, economic, social and cultural evolution extending back into the distant past and consisting of myriad overlapping waves of development interacting, conflicting and clashing with one another in a ‘time-quake’ of civilizational tectonic plates. It is difficult enough to

* Alexander Likhotal on Mikhail Gorbachev during his lecture at the Post-Graduate Certificate Course on Effective Leadership at the Inter-University Center, Dubrovnik, Croatia held from March 31-April 3, 2015 <https://www.youtube.com/watch?v=MpljYcinTt0>

objectively reflect on the complex paradigm in which we are now so deeply and subjectively submersed that we cannot even see its boundaries and constructs. How much more difficult is it to envision the shape of reality on the other side of the one-way mirror of the future!

Whatever shape a paradigm may assume, it has little resemblance to a linear, two dimensional map or matrix diagram. Nor does the process of its unfolding or uncorking represent a unidimensional movement along a single time axis. Movement to a new paradigm may be better conceived as the multi-dimensional development of a sphere that expands on the surface, grows outward from a common center along millions of rays, adds multiple layers of depth as it expands like the geological layers created during the evolution of Earth, and integrates laterally to interlink and bond the rays into a richly woven multilayered fabric of connections and relationships. The center of the sphere consists of the deepest aspirations of humanity. The rays trace the gradual emergence to the surface of physical, social, psychological and spiritual values which represent the quintessence of wisdom regarding survival, accomplishment, growth, development and evolution. The geological layers of the sphere, like those of earth, reveal the successive stages in the historical progression of civilization from pastoral and agrarian to urban, industrial and post-industrial societies. The surface of the sphere is populated by the external mechanisms of civilization characteristic of the age in which we live and often mistaken for the real drivers when in reality they are artifacts and consequences of deeper values and forces moving beneath the surface. The entire sphere is a single, living, self-organizing, social organism throbbing with life, growing, mutating and transforming itself more and more rapidly in time.

Such a conception may capture the complexity of a paradigm, but hardly generates the kind of clarity needed for us to consciously act as catalysts for its evolution. To do that we need at least to identify some prominent markers that characterize the emerging paradigm and distinguish it from the one in which we presently live. Many of those prominent markers have become evident during the course of the fifteen WAAS conferences. Others are yet to be identified.

7. Who is in Control of our Evolution?

The Nature vs. Nurture debate acquired a new dimension at the Baku Conference when it was applied to the question of paradigm change itself. Do human beings change paradigms or do paradigms change by themselves as a result of forces and processes beyond the control of human beings to direct or control? Is it simply hubris for human beings to attempt to create a better future? Do we have the knowledge, wisdom and capacity to consciously evolve as a species? Or must we rely on a mysterious mix of Chance and Necessity to bring about a future we can neither envision nor realize by our own power? Are paradigms created or do they simply emerge? If we conclude that they are formed by a process of emergence, what have we really explained other than to apply a descriptive label to a mystery without saying anything about the process or our role in it?

Humility demands that we be fully cognizant of our ignorance and extremely modest with respect to our collective wisdom to chart a new course. Yet great leaders have always asser-

ted that the human will, not merely the laws of nature or divine providence, governs human affairs. Confronted by the overwhelming onslaught of the Nazi air raids during the Battle of Britain, Churchill did not stop to calculate the odds for and against his country. Instead he emphatically proclaimed on behalf of his nation and free people everywhere: "We shall never surrender". Instead of the much anticipated collapse of British resistance within three months, Germany was forced to retreat from the first major failure of its war plan and the momentum began to shift from Axis to Allied powers.

The historical record clearly confirms the centrality of human consciousness in determining the direction of social evolution, if not always the timing, sequence and methods by which it is realized. The abolition of slavery by Lincoln in 1865 was the bold and brilliant action of a remarkable leader. But it was also the inevitable consequence and expression of a movement of social forces that can be traced through hundreds of incremental steps from a decision of the Lord Chief Justice emancipating slaves reaching the shores of England in 1701, the abolition of slavery in Russia and China in the 1720s, in Portugal in 1761, in Pennsylvania, Vermont and other American colonies from 1775, followed by the gradual abolition of the slave trade and colonial slavery by European powers early in the 19th century. Looking backward, we see that the idealistic proclamations of early abolitionists such as William Wilburforce carried a compelling force for realization. Looking forward to the Indian Independence Movement, the American Civil Rights Movement and the end of Apartheid in South Africa, we see the once utopian ideals gradually acquiring the irresistible force of social determination. The paradigm change from slavery did not just happen by itself. It was born in the minds of visionary leaders, ignited by a fire of aspiration in the hearts of countless adherents and through many fits and starts, gradually coalesced into power to brush aside apparently immovable barriers to social progress, as it did violently in the case of the French and Russian Revolutions and peacefully in the case of Indian Independence and the collapse of European colonialism from 1947, the fall of the Berlin Wall and end of the Cold War after 1989. As Ashok Natarajan argues in "Is the World Floundering or Has She a Vision?" in this issue, human aspirations are an invisible but irresistible force for social evolution – one might even say, a force of Nature.² This perception is behind the emphatic assertion by US President Kennedy that "No problem of human destiny is beyond human beings."^{*}

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Notes

1. Janani Harish, "Leadership for a New Paradigm in Human Development," *Cadmus* 2, no.4 (2015): 88-104
2. Ashok Natarajan, "Is the World Floundering or Has She a Vision?," *Cadmus* 2, no.4 (2015): 48-56

^{*} A Strategy of Peace, was a commencement address delivered by President John F. Kennedy at the American University in Washington, D.C., on Monday, June 10, 1963.