



PROMOTING LEADERSHIP IN THOUGHT
THAT LEADS TO ACTION

THE WEALTH OF NATIONS REVISITED

CADMUS

NEW PERSPECTIVES ON MAJOR GLOBAL ISSUES

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The CADMUS Journal

The acronym of the South-East European Division of The World Academy of Art and Science – SEED – prompted us to initiate a journal devoted to seed ideas – to leadership in thought that leads to action. Cadmus (or Kadmos in Greek and Phoenician mythology) was a son of King Agenor and Queen Telephassa of Tyre, and brother of Cilix, Phoenix and Europa. Cadmus is credited with introducing the original alphabet – the Phoenician alphabet, with “the invention” of agriculture, and with founding the city of Thebes. His marriage with Harmonia represents the symbolic coupling of Eastern learning and Western love of beauty. The youngest son of Cadmus and Harmonia is Illyrius. The city of Zagreb, which is the formal seat of SEED, was once a part of Illyria, a region including what is today referred to as the Western Balkans and even more. Cadmus will be a journal for fresh thinking and new perspectives that integrate knowledge from all fields of science, art and humanities to address real-life issues, inform policy and decision-making, and enhance our collective response to the challenges and opportunities facing the world today.

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Inside this Issue

Earlier issues of *Cadmus Journal* have explored new ideas and strategies for addressing the multiple challenges confronting global society today in the fields of economics, ecology, governance, security, society and culture.

Beginning last year the focus of the World Academy of Art & Science shifted from examination of individual sectors to a search for comprehensive, integrated solutions, which represent initial efforts to frame a New Paradigm for human development. This has been the subject matter of recent conferences at Trieste, the UN in Geneva, Library of Alexandria, Washington DC and Ottawa in 2013. This shift has continued in 2014 with a very successful conference on “**Transition to a New Society**” in Podgorica held in association with the Montenegrin Academy of Sciences & Arts and participation in a meeting organized by Club of Rome at Castell de Castellet near Barcelona last month.

The April 2011 issue of *Cadmus* led with a “**Call for United Action**” by Heitor Gurgulino de Souza. In the spirit of that call, on April 30th this year WAAS and the Nizami Ganjavi International Center are convening a meeting in Baku, Azerbaijan to explore the scope for collaboration between leading organizations on formulation of a new paradigm. The meeting will involve leading organizations including the Club of Madrid, Club of Rome, Future World Foundation, Green Cross International, Institute for Cultural Diplomacy, Library of Alexandria, Partnership for Change, World Future Council, and the recently established World University Consortium.

This initiative is based on the following premises:

- The contemporary world is global, complex, uncertain and changing rapidly.
- The present economic, social and political paradigm is destroying natural, human and social capital at an accelerating pace.
- The problems generated by this destruction require urgent solution.
- All of these problems are complex, interconnected and cannot be effectively addressed in a piecemeal, sectoral fashion.
- They cannot be solved within the existing paradigm.
- One of the fundamental issues concerns rebuilding macro-economics.

“Today a new human-centred and sustainable economic, social and governance paradigm is demanded.”

- *The world witnessed a number of sudden, dramatic, game-changing paradigm changes in the 20th century.*
- *Today a new human-centred and sustainable economic, social and governance paradigm is demanded.*
- *It must be global in perspective, adaptable to constantly changing conditions, and capable of responding to inherent uncertainties.*
- *A new paradigm is achievable while preserving the valuable components of the existing paradigms.*

*This issue of **Cadmus** includes a number of articles exploring different dimensions of these issues. We hope readers enjoy it and invite you to contribute to the on-going effort to frame new foundations for human development.*

Orio Giarini

Garry Jacobs

Ivo Šlaus

Expanding Network of Networks

The World Academy of Art & Science was founded as a network of concerned individuals committed to addressing the multi-faceted global challenges of the modern era. It would appear that a small group of people – no matter how distinguished – cannot expect to have significant impact on problems that span the entire globe and confront all of humanity. But appearances can be deceiving. On closer examination, we discover that each of our members is a member of many other networks that cross organizational boundaries, disciplines, fields of activity and national borders to form a rich web of interrelationships as intricate in its variety and complexity as the Internet. We are all nodes on that global network.

The development of the World Wide Web has made self-evident just how powerful inter-linking relationships can be for accomplishment of any objective. Indeed every society is such a network and all of the work accomplished by the world today depends on these subtle linkages. The power of language, money and the Internet derives from the fact that they are tools that facilitate networking. Every individual constitutes a network of immense potential. That explains why single individuals throughout history have exhibited a remarkable power to change the world as explored in the Academy's project on Individuality. What applies to individuals is even more applicable to organizations of individuals.

Three years ago the second issue of *Cadmus* began with a Call for United Action by Heitor Gurgulino de Souza.¹ It is with this understanding that the Academy has consciously set out over the past few years to foster and strengthen our relationships with like-minded institutions – organizations such as CERN, Club of Madrid, Club of Rome, European Leadership Network, Foundation for a Culture of Peace, Global Security Institute, Green Cross International, Institute for Cultural Diplomacy, Inter-Academy Panel and Medical Panel, International Association of University Presidents, Inter-University Centre, Library of Alexandria, Montenegrin Academy of Sciences & Arts, Mother's Service Society, Nizami Ganjavi International Center, Parliamentarians for Nuclear Non-proliferation and Disarmament, Person-Centered Approach Institute, Pugwash, United Nations Academic Impact and World Future Council – nearly all of which are headed by Fellows of the Academy who are themselves members of many other distinguished organizations. And these tentative steps are only the beginning.

“As an Individual, each of us is a psychological network whose potential power for effectiveness remains largely unperceived and unexpressed.”

With the founding of the World University Consortium of educational institutions last year, WAAS has taken the first step to convert these informal relationships into a formal umbrella group of organizations capable of leadership in thought that leads to action at the global level. We are now in the process of constituting two other umbrella groups to develop a New Paradigm for Human Development and promote peaceful development in the Levant. Each

member can contribute to the growth and development of these networks by serving as an active link between WAAS and the other organizations with which you are associated.

As an Individual, each of us is a psychological network whose potential power for effectivity remains largely unperceived and unexpressed. Becoming fully conscious of that capacity will enable each of us and the Academy as a whole to accomplish far more than we now think possible. We invite you to collaborate in this endeavor.

**Orio Giarini, Heitor Gurgulino de Souza, Garry Jacobs,
Winston Nagan, Ivo Šlaus and Alberto Zucconi**

Notes

1. Heitor Gurgulino de Souza, "Call for United Action," *Cadmus* 1, no.2 (2011): 9.

The Coming Revolution in Education

There are many kinds and degrees of freedom – political, social, psychological and spiritual. The end of colonialism following WWII liberated a third of humanity from the oppression of foreign rule. The end of the Cold War brought the freedom of democracy to hundreds of millions more in Eastern Europe, Latin America, Africa and Asia. The birth of the Internet brought unprecedented freedom of access to information, ushering in a revolution in knowledge that is breaking down the confining structures of ignorance, misinformation and prejudice that divide and separate people even when they are living side by side.

“The coming revolution in education is a harbinger of the coming freedom of the individual.”

But for all this astounding progress, humanity remains imprisoned and oppressed by the limitations of a social structure that separates the educated from the uneducated, those who possess the knowledge and certification which are passports to economic opportunity and social respectability and those who do not. For every privileged aristocratic elite it has abolished, education has created a new, albeit much larger and more inclusive social elite distinguished from the rest by the status of a diploma.

Freedom can liberate and empower like nothing else. We are now on the cusp of a revolution in education that will be both liberating and empowering. Education is a great leveler. It levels politically by generating awareness of rights and awakening the aspiration for freedom and equality. It levels economically by equipping youth with the knowledge and skills to rise beyond the occupations of their forefathers. It levels socially by dissolving invisible barriers to mobility and opening doors of opportunity. But, more importantly, education inspires and empowers the individual to come into his own, to discover his own potential, to become self-reliant and find his own place in the world. Knowledge provides access to information, but not necessarily the capacity to absorb or utilize it effectively. Education imparts that capacity to absorb what is available, process, interpret, apply and utilize it for individual accomplishment and social advancement. The coming revolution in education is a harbinger of the coming freedom of the individual, the empowerment of the individual to play his true role as co-creator for the further evolution of society in the 21st century.

It may sound naive to speak of a revolution in higher education, an institution which in its constitution and mode of functioning has remained immune to alteration by all the revolutions of the past in which it has itself played a crucial role as incubator for disruptive ideas, break-through technologies and impatient energies demanding radical change. The institution of higher education itself is still based on a pedagogy and technology developed centuries ago. Therefore it is wise to recall that even the most visionary failed to conceive in 1995 of what the World Wide Web would become in a mere 20 years.

The quantitative extension of access to free quality higher education made possible by the MOOCs is itself only the beginning of something far more important. The coming revolution will not only make education accessible to all; It will also upgrade quality and unleash creativity and innovation in the field of education as never before. It will tear down the barriers that separate the ivory tower from the real world. As Ismail Serageldin observed during the

April 2014 Biovision conference at the Library of Alexandria, “we are in the earliest stage of a transformation in the structure of the institutions of education and learning which will morph into something unrecognizable to those who think of yesterday’s schools as a model or those who yearn for their collegiate university experience. We need to think even more boldly and dream of reinventing education completely.”

“Imagine a system in which the often impermeable barriers between the university and society become a porous and dynamic marketplace for continuous exchange of ideas in both directions.”

Imagine a global system in which every student can choose from thousands of courses offered by universities around the world and from among the top lecturers in the world on every subject with automatic translation into any language of choice. Imagine a system in which other institutions – research institutes, NGOs, companies, governmental and international organizations – can offer their own expertise and experience as course material through a process of backward integration from live practice to theoretical knowledge in the world’s virtual classroom. Imagine a system in which the often impermeable barriers between the university and society become a porous and dynamic marketplace for continuous exchange of ideas in both directions. To imagine these things is to envision a world in which all individuals have unprecedented opportunity to develop their own capacities for independent thinking, creativity, personality and individuality. It is to envision a human-centered society in place of the technology, money and status-centered society in which we now live – a society which strives to develop and realize the full potential of every human being. That is indeed a dream today, but a dream that can soon be realized.

Alberto Zucconi and Garry Jacobs

Transition to a New Society

Ivo Šlaus

Honorary President, World Academy of Art and Science;
Dean, Dag Hammarskjold University College for
International Relations & Diplomacy, Zagreb

Abstract

The contemporary world is global, uncertain and rapidly changing. The present economic, social and political paradigm is destroying natural, human and social capital at an accelerating pace. Problems generated by these destructions require urgent solution. All these problems are complex, and cannot be addressed in a piecemeal, sectorial fashion. These problems cannot be solved within the existing paradigm. They have to be addressed holistically, simultaneously and immediately. A new holistic economic, social and governance paradigm is needed. The new paradigm has to be human-centered and sustainable. It should be global, constantly evolving by overcoming inherent uncertainties. A new paradigm is achievable while preserving the valuable components of the existing paradigm.

Five scenarios are possible: one, no change; two, business as usual; three, incremental changes; four, revolutionary changes and five, paradigmatic changes (a concept introduced by Thomas Kuhn in *The Structure of Scientific Revolution* (1962) for development of scientific research. I will use it here in the sense of socio-economic-political development and in a narrower way distinguishing it from revolutions).

Changes are imbedded into our society, e.g. demographic transition and technologies built in our lives; they cannot be stopped even if dedicated efforts were institutionalized. There is no end of history as F. Fukuyama and Hegel suggested, and option one is just not possible.

The last century witnessed major progresses: life expectancy increased by almost a factor of two, gross domestic product per capita (GDP/c) increased almost five times, freedom and democracy (one of the Kantian conditions for peace) now encompass a large fraction of humankind and the international system of sovereign states has produced notable successes such as the UN system and Montreal ozone agreement. One could conclude that business-as-usual is a desired scenario.

It is not!

Ecological footprint is considerably larger than what our Earth can tolerate and if business-as-usual continues in the year 2050, we would need two Earths. Since colonization of the universe is by no means as simple as the discovery of the New World 500 years ago (notwithstanding the fact that our mobile phones and GPS prove that we are already in the

space outside of our Earth), the present ecological footprint is unsustainable. Much worse: our destruction of Natural Capital has been considerably deeper (e.g. destruction of biodiversity, nitrogen cycle and climate changes as demonstrated in *Bankrupting Nature* by A. Wijkman and J. Rockstrom). Life on Earth is threatened.

The enormous, not fully realized human potential, the guarantor that humans could overcome most of the obstacles, is destroyed by business-as-usual. Low employment rates, now in many countries below 70% (particularly vulnerable are two groups: young and those above 50) and huge inequalities (hundred-thousand times larger than recommended by Plato 1:5, and J.P. Morgan 1:20) lead to lower life expectancy, increased crime rate and deteriorate all socio-economic indicators (it is known that there is a window of desirable and acceptable inequalities). Human Development Index decreases because of inequalities. The loss is largest in education (e.g. 57% in Arab countries and 50% in South-East Asia) and in health (45% in Sub-Saharan Africa). Present economic structures and institutions are in conflict with current and developing economic realities as demonstrated by frequent and prolonged financial and economic crises. Business-as-usual led to serious destruction of trust and of social capital.

There are about 3000 different cultures which we have to preserve and 200 sovereign states which grossly differ in size, and the subsidiarity concept that could overcome this discrepancy is hardly implemented. The very concept of sovereignty in the 21st century is not what it was in the 17th century. The *raison d'être* of sovereign states is, to assure human security through maintaining order and justice internally and to provide common defense are questionable; the number of failing states increases even more ominously; democratic deficit increases since barely about 50% of citizens vote and many polls indicate that about 70% consider that their countries are governed contrary to their will. The governance system of the current world is not adequate – both at the level of sovereign states (it is interesting that the author of the famous Incompleteness theorem K. Gödel while going to get the US citizenship was prevented by his friend A. Einstein from saying to the clerk that the US Constitution has a logical inadequacy that could lead to dictatorship), and at the international level (The UN system designed after WWII is not adequate for the current world and in several ways has even deteriorated: The UN Security Council with veto power of five permanent members, the now established G8 or G7 or G20, and the fact that still there is no UN parliamentary assembly and most notably, no global governance).

Nine sovereign states (with about half of the world's population) have detonated nuclear weapons, and though numerous treaties have reduced nuclear stockpiles, about 20,000 nuclear weapons, a large fraction of them on trigger-alert status are threatening to destroy our world. Many times since the end of WWII the world came very close to destruction: to list just two, the Cuban crisis and on September 26, 1983, when the USSR's nuclear early warning system reported missile attack from the USA. Stanislav Y. Petrov, an officer on duty, assumed it was false (and it was a false alarm) and so saved the world. The Bulletin of the Atomic Scientists put a Doomsday clock on its front page. It was put at 7 minutes to midnight in 1947, and was moved to 2 minutes in 1953 when the USA and USSR exploded

their H-bombs, less than a year apart. At the end of the Cold War it was moved to 17 minutes. On January 14, 2014, it was put on 5 minutes to emphasize the danger of all weapons of mass destruction (WMD: nuclear, chemical and biological) and destruction of Nature caused by humans. Superimposed on WMD which are the weapons of the 20th century, new 21st century automatic robot weapons are being designed and deployed. Now I would put the clock again at 2 minutes

“A profound change is required, not a revolution!”

before midnight, since current political actions are pushing the world toward a renewed Cold War superimposed on terrorism and on all social, economic and political problems. Politics permeates everything, but as the 17th century Swedish chancellor Axel Oxenstierna said, “Politics is done with enormous stupidity.” It leads to strange results as often stressed now on the occasion of the 100th anniversary of WWI that claimed to be an improbable war and yet resulted in the largest casualties. “It was the worst of times, it was the best of times”, were the words of Charles Dickens describing the time of the French Revolution, which have now turned into “to be or not to be”, as underlined by WAAS Fellow Winston Nagan.

Change is needed! Are incremental modifications, so often recommended at many international forums, adequate? Experience with revolutions demonstrates they do not lead to anything good. The Club of Rome organized on December 8-11, 2012, the conference “Change the Course” remembering the April 15, 1912 sinking of the Titanic. Is it enough to change the course? The current world is substantially different from what it was, while the call implies that we would still be in the same ship. Now we are a very different “system”, likely not going to the destination that Titanic – our civilization – aimed to go. It seems that a profound change is required, not a revolution!

It would be interesting to analyze human activities dealing with systems that are considerably simpler than society. This is our physical universe that involves particles, forces and laws that apparently did not change for the last 13.8 billion years. Understanding of the physical universe considerably evolved during several millennia. It was and is based on observations, experimentations, measurements and common sense forming a multitude of prejudices. Technologies developed enabled us to change ourselves and the world we live in and gave us the worldview fairly different from what it was when we were hunters/gatherers. Based on observations and measurements in the past, we believed that we are the center of the world, and that stars including the Sun move around us in perfect orbits – circles. When facts required more, circles were superimposed upon circles (incremental modifications!) until the Copernican revolution (!): Earth moves around the Sun, and with Kepler and Newton it became clear that orbits are not circular. Looking from the 20th century it is a minor change: basic concepts remained the same. Actually, the idea was not even completely new: it was proposed much earlier by Aristarchus of Samos in 3rd century BC. Nevertheless, we term it ‘Copernican Revolution’. It was not peaceful, actually it was bloody, and enemies were burned at stakes, much like the French and the October Revolutions. The end of the 19th century was a glorious epoch for physics: unification of electricity and magnetism resulting in predicting electromagnetic waves thereby incorporating optics, added to understanding energy and introducing entropy. Logically, Kelvin concluded that physics is complete and

that two minor clouds would be clarified through more precise measurements. Minor clouds turned out to be the Theory of Relativity and Quantum Physics. Everything has changed: time, space, certainty, common sense. As G. B. Shaw said, "My dogma of infallibility is gone." However, notwithstanding the fact that the uncertainty principle is the basic law of all natural sciences, quantum electrodynamics, marvelous merging of relativity and quantum physics predicts results that agree with measurements to an accuracy of billionth of a billionth. Thomas Kuhn called this profound change a paradigm shift. Obviously this paradigm shift is much more pronounced than the Copernican Revolution. But, notwithstanding the profound magnitude of the change, the new paradigm reduces to the old paradigm when conditions for the validity of the old paradigm are fulfilled so there is no conflict: old paradigm is just a subfield of the new paradigm. It seemed that quantum physics and the theory of relativity would provide a definitive description of our physical universe, and that we have the answer to the 2500 years old Thales' question: How and from what is the universe made? In 1979 Stephen Hawking entitled his inaugural talk for the Lucasian chair "Is the End in Sight for Theoretical Physics?", and an American science journalist J. Horgan argued ("The End of Science", 1996) that nothing essential can come after quantum physics and theory of relativity. Though quantum physics and theory of relativity are not superseded, our present understanding based on COBE (1992), WMAP (2001), ESA Planck (March 21, 2013) and BICEP2 (announced just few days ago on March 17, 2014) as well as on many accelerator data leads to the understanding that ordinary matter (stars, planets, radiation and us) accounts for 4.9% of our 13.8 billion years old universe, while dark matter accounts for 26.8% and dark energy, 68.3%, which may be just one of the many universes in the multiverse. Our cosmos underwent a cosmic phase transition (we are familiar with phase transitions like ice turning into water and gas). Phase transition could even be involved in the creation of 3D space 10^{-12} seconds after the Big Bang. And this may not be the end of this marvelous story! Theory of relativity and quantum physics were full of surprises: Einstein rejected expansion of the universe (it is experimentally proven), and with many others did not believe in singularities nor in black holes (they are proven too). Randomness and uncertainty were so unacceptable to many 19th century physicists, and so were antimatter and supersymmetry, not to speak of strings and "branes". Different from revolutions that claim to be the end, paradigm change in physics at the turn of the 19th and 20th centuries was a creative explosion of potential surprises.

"Trying to apply reasoning derived from physical systems to social systems is wrong and can be dangerous! Applying physics to calculate the age of the Earth and thereby prove or disprove Darwin's theory of evolution led Kelvin to a totally wrong conclusion."

Are any of these analyses relevant and useful for addressing the current issues characterizing our society? Physical world is just a very simple segment of the total world inhabited by life, humans in particular. Humans are rational, but also irrational, even stupid, self-modifying

(though we were mainly characterized by our lifestyle as hunter/gatherer, humans today are vastly different from the age of the Agricultural Revolution and have already integrated some robots in themselves: pacemaker, implants etc.). Humans are conscious and creative. Beauty plays a significant role in Nature and in human activity (possibly more than required by evolution), and wisdom appears to be scarce. Trying to apply reasoning derived from physical systems to social systems is wrong and can be dangerous! Applying physics (albeit unfinished, but is hardly ever completed) to calculate the age of the Earth and thereby prove or disprove Darwin's theory of evolution led Kelvin to a totally wrong conclusion. Only when radioactivity was discovered and taken into account, it was possible to get the proper result for calculating and measuring the age of the Earth. Influence of physics, mathematics and model development was often detrimental to economic studies. However, parallels could be useful if applied with a grain of salt. So, let us proceed gently.

We argued that for our world a static solution is impossible and that the business-as-usual leads to catastrophe. Contemporary world is global (it was never global to this degree), fast changing (now significant changes occur several times during human lifetime) and uncertainties are its integral part. All this is very different from what it was centuries, even decades ago and lead to change. Change is inevitable! The world undergoes incremental and paradigmatic changes where some of them could lead to catastrophe. As G.B. Shaw's Don Giovanni said "to drift is to be in hell, to steer is to be in heaven!" We have to steer – to select desirable changes and to avoid and suppress undesirable ones. And we have to select the means of change. We argue that revolutionary changes are dangerous, superficial and produce incomplete and inadequate effects, and should be avoided. Soedjatmoko Mangoendingrat, former Fellow of WAAS and former rector of the UN University, argued that future is an ethical category: we are responsible for the future, we make the future, we enforce and suppress some changes and weave the paradigmatic shift. But how? Basic guiding principles are useful, just as in physics when Einstein was led by the requirement that in all frames physical laws are equal, resulting in the constant speed of light and no matter what we do we cannot catch it. Guiding principles to assure beneficial changes could be those centered on human beings.

Humans have rights and responsibilities. Our basic right is to live. Therefore, the guiding principle is human-centeredness. One could argue that our entire history was human-centered; it seems very straightforward (after all here we are. However, in centuries of the past, *raison d'état* was supreme over human values. Many of today's laws and policies are very far from being human-centered e.g. an austerity program severely affecting humans). Now greed, narrow-mindedness, adherence to old, now dangerous, concepts and "tools", prejudices and deliberate underuse and misuse of human capital are leading to catastrophe, to our collective suicide. ("There is enough for human needs, but not for rich persons' greed")

What does human-centeredness mean?

While in studying physical systems one could make useful approximations and idealizations and treat many topics separately and independently, we have to remember that the essential feature of our society is interconnectedness; everything is interdependent. All problems have to be treated simultaneously. The current paradigm is rapidly leading

to a catastrophe and so all problems have to be addressed promptly, since they are urgent. New economic paradigm has to be intertwined with new governance paradigm, and they all have to be sustainable and peaceful. The sources of the interdependence are individuality of human beings and integration of humans and Nature, integration of humans among themselves, as well as our values, identity, our aims, aspirations and expectations shaping humans into historical conscious beings.

Humans are an integral part of Nature, and preserving Nature is a vital aspect of human-centeredness. The present paradigm grossly violates Nature. Notwithstanding several successes, governance of the environment has been and is dismal. The economy maximized for profit and greed, and ignoring the commons is unacceptable in the new paradigm. New ecological economy has to maximize the use of abundant resources, and human and social capitals are abundant and underused, and it has to minimize the use of scarce resources like natural capital. As in physics some “sacred cows” would have to be modified. Again, one has to be careful in assessing concepts (property, virtual wealth) and tools (e.g. money, banking). One should be careful that some of our “revolutionary” ideas, which may appear to be new, could be part of our old grudges. Adam Smith was a moral philosopher and economist concerned with human welfare. Economics developed its own measurements and became an independent scientific discipline. It took humankind millennia to develop the system of units that was finally codified at the time of the French Revolution and we got meters, kilograms and seconds. It is no wonder that indicators and measurements in economy – productivity, competitiveness, GDP, Human Development Index and many others all the way to happiness indicators – are far from satisfactory, but some of them, when based on good theory, produced good policies and effects. It is often stated that the current age is the age of measurement, but we have to be careful and humble as we use these indicators and derive policies and actions from such measurements. The present disillusionment in everything, sometimes including science, leads to questioning the results of pollution and climate change. Of course, there will be progress in climate models and even more in understanding the enormously complex climate system, but as nobody would jump from a high story building arguing that we still do not properly understand gravity (it is absolutely true that we do not fully understand gravity), so humankind should stop violating Nature arguing that our current knowledge is not perfect and will soon be improved. We just have no time and the call “let us all have the standard as in highly developed countries” is not unrealistic, but senseless since that standard is not necessarily high or satisfactory.

Humans are social animals, and the Golden Rule is an integral part of all major religions and cultures is imbedded in our genetic code. Violence, arrogance and inactivity (sin of omission) have characterized the old paradigm and each and all lead to catastrophe. Violence is destroying human dignity, and all forms of violence from individual violence to terrorism, to war, to state-terrorism (democide) and social suppression are part of an old paradigm unacceptable in the age of a new paradigm. Part of the old paradigm was preparing for war, but contrary to any and all superficial analyses there is clear evidence that WMD are counterproductive, immoral and unusable, and through their enormous economic burden (it is estimated that the USA, within the next decade, will spend 1 trillion dollars just to maintain

its nuclear capability) lead to economic destruction. Arrogance is common to humans, and all “end of ...”s show that at various times we believed we achieved complete understanding and a perfect structure. There is a joke that astrophysicists are often in error, but never in doubt. Since our world is so rapidly changing according to the “rules” we do not yet understand, such conclusions are wrong. As quantum physics/theory of relativity provided explosion of surprises, so the forthcoming paradigm shift can produce an explosion of even richer surprises. Possibly the sentence “There are more things in heaven and in the Earth, my dear Horatio, than are dreamt in your philosophy” has to be turned around: our creative power is supreme. We may enter an age when we share our Earth with robots – automatic and artificially intelligent robots – and our economy and rule of law have to be modified, producing unforeseen and unimaginable integration of us and them. There is an old joke from communism: when expert economists encounter two workers pushing a cart, they comment “why do two of you push it, when it is easier for one to do it?” and the reply comes “since the third one is ill.” The Future will likely replace their work with robots. This does not imply unemployment; it implies that people will do much less manual work, and a lot of creative work which is badly needed: we do not understand, we do not have answers, solutions to problems we face, and not acting will not solve any of these problems. Aristotle argued “That all men (he should have used humans) by nature have a desire to know.” Society has to assure education for all at all levels (including lifelong learning), research and creativity. This is what governments today are for since this is part of justice, prosperity and human security. Full employment is a human right, intertwined with human political rights. It is often emphasized that the current economy is a service economy. This is true, but beware that services do not overwhelm us through unnecessary and obstructive services (it sounds as an oxymoron, but services, e.g. various over-controls can suffocate the system; each step of mandatory services involves an error and they add).

“Proposals for establishing UN Environmental Security Council and UN Social Security Council are more than three decades old, but nothing has been done so far.”

Humans are political animals, and though Aristotle stated that “politics” has a special position in scientific activity, it is true that research, science and politics were constantly in conflict as demonstrated by Justinian abolishing the Plato Academy. In a global world we need global education and global governance. Present structure of sovereign states and present international regime should be constantly improved to include global dimensions and to add existing richness to the system of sovereign states. Some of this has been done long ago, e.g. ILO (first international labor organizations date from the 19th century and then immediately after WWI and through the League of Nations) having a tripartite governance structure representing governments, workers and employers (in 2:1:1 ratio) and it would be very useful to implement similar structures throughout the UN system. Proposals for establishing UN Environmental Security Council and UN Social Security Council are more than three decades old, but nothing has been done so far. There are other existing forms that could

be implemented. For instance, referenda are integral part of a political process in several countries, but global referendum was never tried there. Referendum is a rather complex political process with many drawbacks, but it would be rewarding to contemplate referenda on basic human rights that would then force legal consequences in each and all sovereign states laws. Examples could be protection of basic human rights such as the abolition of WMD, abolition of war and full employment.

We showed that no matter what, the world is facing major paradigmatic shift. In a world characterized by uncertainties actions of humans require interplay of science, creativity, political actions and decisions. Collaboration and harmonious actions by independent structures such as the UN system, Club of Madrid, Club of Rome, Pugwash, European Leadership Network, World Academy of Art and Science, regional academies, national academies and many other organizations such as research centers, sovereign states, various movements are necessary to implement leadership in thoughts that leads to action.

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New Paradigm: The Necessity and the Opportunity

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Abstract

The multi-dimensional challenges confronting global society today will not lend themselves to resolution by piecemeal sectoral strategies and incremental measures. Their causes are deep, inextricably interconnected and result from deficiencies in values, concepts, institutions, policies and actions. Fundamental change is needed in both thought and action – a new intellectual paradigm that is comprehensive and integrated combined with a new institutional policy framework founded on the values of human welfare and well-being. At every crucial juncture in human history the advent of new paradigms has precipitated radical change. Past paradigm changes confirm that the problems created by human beings can be solved by human beings. At such moments, ideas have the power to precipitate radical change driven by compelling social forces and emerging deep drivers. Today the pressure of rising expectations for freedom and prosperity, unprecedented technological capabilities, burgeoning global financial assets, and an inevitable movement toward an integrated global society combine to generate the opportunity and necessity for fundamental change. The starting point is the willingness to challenge the irrationality of the premises underpinning the existing paradigm. Paradigm change is not only possible. It is inevitable. The only question is whether it will occur by gradual, progressive, peaceful social evolution now or drastic, sudden, violent and potentially catastrophic revolution later.

1. Multidimensional Global Challenges

The world today presents unprecedented opportunities intricately intertwined with seemingly unsolvable challenges. A proliferation of money, technology, education, trade, communication links and democratic institutions is fueling ever more rapid global development. At the same time, prevailing ideas, institutions and policies impose severe constraints on our ability to meet the growing needs and rising aspirations of the human community for freedom, security, welfare and well-being in a peaceful, effective, harmonious and equitable manner. The growing global capacity to meet human needs has come face to face with seemingly insurmountable obstacles posed by out-moded ideas and attitudes, vested-interests, entrenched forces and ineffective institutions.

These opportunities and challenges present a nexus of unparalleled complexity. Each positive advance brings with it new problems and aggravates existing ones. Technological wonders widen social disparities and displace workers, generating public discontent, political instability and conflict. Rapid growth accelerates environmental depletion and competition

for scarce resources. Spreading democracy provides greater scope for polarization of society on religious, ethnic, linguistic, political and economic lines. Globalization opens up economic opportunities while making states and their people increasingly vulnerable to destabilizing impacts from beyond national borders. The weakening of national sovereignty has created a widening legal and governance vacuum at the international level at the very moment when coordinated global action is more necessary than ever before.

These challenges and opportunities share common characteristics. They are all interrelated and interdependent, global in nature, transcend narrow disciplinary boundaries, and subsist on the basis of erroneous conceptions, flawed theories and out-moded ideas. They defy solution by piecemeal concepts, incremental policies and sectoral strategies framed within the context of the prevailing values, concepts and institutions that preside over the formulation and execution of public policy. Each can be traced back to similar underlying factors and “root” causes, a major reason why they defy effective remedy by partial strategies. The true source of these crises lies in the ideas and values that underpin the structure of modern society and they will only lend themselves to permanent remedy when understood and addressed from a deeper and wider perspective. They are all anthropogenic in origin. All are the expression of prevailing ideas, values and actions, not inalienable laws of Nature, which means that all can be rectified by a change in those ideas, values and actions. As President John F. Kennedy put it, “Our problems are man-made – therefore, they can be solved by man.”¹

As they grow in magnitude, these challenges will compel a questioning, re-examination and reformulation of things once considered as sacred and unshakeable as the Roman Empire in its day or the USSR before its sudden demise a quarter century ago. Failing this, they will lead to increasing social turbulence unleashing revolutionary forces of violent change as society has witnessed at crucial transition points in the past. Whether by violent revolution or peaceful social evolution, the current impasse must and will inevitably be resolved by effective action, as surely as the Great Crash and Great Depression led to the evolutionary advances of the New Deal and the rise of the modern welfare state.

If not incrementally and piecemeal, then the solution must lie in a broader more fundamental recasting of the political, legal, economic and social pillars on which global society is presently based. We have to move the goalposts that presently constrain our thinking and our action. The existing paradigm must inevitably give way to a new paradigm. This implies significant or even radical changes in the values that guide public policy and action, in the concepts that underpin our comprehension of society and its development, in the political institutions of governance and their relationship with different sources of social power, in the laws governing relationships between sovereign states and between governments and the governed, in the regulation of economic activities and their impact on people and the environment, in social policies that determine the distribution of rights and benefits in society, and in countless other areas.

A better appreciation of their common attributes and root causes will provide a platform for insightful debate and more effective remedies. Approaching the multiple crises from a

common perspective and addressing multiple pressure points at their common underlying roots can lead to solutions that are far more practicable, effective and lasting than those resulting from a fragmented approach. Only then can we hope to reconcile these complex economic, ecological, social and political forces and forge a coherent strategy to promote security and welfare for all human beings, present and future.

An integral perspective constitutes the starting point, but in order to translate it into usable, practical results, we will also need to examine the ruling ideas and values that govern the present system, the theoretical constructs and policy framework on which it is based, the social institutions through which it functions, and the structures and laws by which it is governed. These constitute the essential sources of the current problem as well as the principal instruments for building a better world.

“In countries around the world rule by money power, plutocracy, masquerades as representative democracy.”

2. Characteristics of the Existing Paradigm*

Ideas and values underlie all our thought and action. The world we know today is a natural consequence of ideas and values formulated in the past, adopted over time and still prevalent in spite of increasing challenges to their validity, fairness and relevance. The existing paradigm of global development is based on a set of spurious assumptions, premises and principles which may have had some utility in the past, but now represent serious impediments to global social, economic and political progress. There are numerous reasons why the present paradigm fails to provide optimal solutions.

The current paradigm is based on outdated and naïve economic theories and assumptions, such as the infallibility of free enterprise, which ignores the obvious fact that unregulated markets, like other networks, are neither free nor fair, for they invariably become skewed in favor of the early adapter or the most powerful. It is based on economic doctrines more appropriate to a capital-intensive, technology-driven industrial economy at a time when human services account for three-quarters of all economic activity and the quality of human resources is the single most important contributor to wealth creation. It is based on measures of economic value that consider expenditure on arms exports, war and environmental catastrophes of equal value to those on education, health care and human security. It is based on a narrowly defined notion of economic efficiency that neglects the wider efficiency of the society of which economy is but a part. A society with 20 or 50% youth unemployment does not qualify as efficient by any rational considerations, for it is a society that is squandering its most precious and perishable resource and sowing seeds for future revolution.

The current paradigm is also based on outdated concepts regarding national and global governance. In countries around the world rule by money power, plutocracy, masquerades as representative democracy. It supports an undemocratic system of global power sharing

* This section is adapted from an earlier published article by the authors. See <http://cadmusjournal.org/article/issue-6/search-new-paradigm-global-development>

established more than sixty years ago that is grossly out of tune with both professed ideals and current realities. It is founded on a narrow conception of national sovereignty that – regardless of the actual form of national government – subordinates the legitimate rights of individual human beings and the collective rights of the human community to that of national governments acting on behalf of special interests and power groups. It upholds the right of some nations to special privileges unmatched by commensurate responsibilities. It sanctions the production, possession and possibly even the use of weapons that violate the humanitarian rights of all humanity and endanger the global environment.

3. Characteristics of Paradigm Changes

History offers precedents for radical change. Usually it occurs in the form of violent revolution in the face of intractable vested interests that resist dilution of their power, as in Revolutionary France and Czarist Russia. Occasionally it has been ushered in by far-sighted leaders who recognized the urgent need for rapid social evolution to preempt the possibility of violent revolution, as nineteenth century England sought to avoid a repetition of the bloodshed that wiped out the French aristocracy by opening up to the prospering middle class a greater share of political power and social respectability.

The challenges confronting humanity today are as formidable and threatening as any or all of these earlier challenges combined. At the same time the opportunities available to humanity to meet the needs of all human beings have never been greater. Both the compulsions of eminent danger and the prospects for unprecedented progress constitute powerful incentives and enabling conditions for unparalleled actions with potentially momentous consequences.

This naturally raises questions as to whether a significant change in paradigm is possible or likely in the foreseeable future and as to whether there is anything that can be done by a group of like-minded organizations and individuals to make that change occur or occur any sooner than global social conditions determine. An examination of past paradigm changes during recent WAAS conferences at Trieste, Geneva, Alexandria, Washington DC, Ottawa and Podgorica provides some insights regarding these questions.

3.1. Paradigm changes are not uncommon

A review of past centuries and more recent times supports the conclusion that significant paradigm changes are more common than is commonly believed. In 1932 US President Franklin Roosevelt spearheaded a remarkable and unprecedented change of paradigm in US economic and social policy. In the wake of the banking panic that led to the closure of more than 6000 US banks, he pushed through radical reform of the banking system, erecting the safeguards that protected the economy from recurrent banking crises for the next seven decades. But he did not stop there. It was almost unthinkable in 1932 to imagine that the world's leading proponent of free enterprise would adopt strong social welfare policies. Yet during the following two years FDR ushered in the New Deal, a radical reformulation of public policy to promote social security in a country previously resistant to all

government-sponsored welfare measures. Had he not died prematurely before the end of the war, he would have capped his revolutionary program with a new bill of economic rights, which included the right to employment. The adoption of similar social welfare policies in Europe led to a period of unprecedented economic development and rising levels of prosperity throughout the Western world.

Since 1945 four equally remarkable changes in paradigm have radically advanced the cause of freedom, peace and global security. India's non-violent independence movement marked the end of colonialism and was quickly followed by freedom for more than 50 subject nations representing about one-third of humanity. After fighting two horrendous world wars, the great powers founded the UNO to permanently shift the theater of major conflict between nation states from the battlefield to the conference table, thereby successfully preventing a third world war during the 20th century. In the 1950s the perennially warring European powers took the first steps toward founding a trans-national union that has brought unprecedented peace and prosperity to the continent and made war in Europe unthinkable. Again in the late 1980s, Gorbachev initiated steps which led to the dissolution of the authoritarian Soviet Empire, ended the Cold War and brought down the barriers dividing East and West. As a cumulative result of these four great transformations, between 1945 and 2012, the number of democracies rose nearly five-fold from 21 to 98.² During the same period, annual war casualties dropped from 500,000 to 30,000.³ Since 1988 high intensity wars that kill at least 1000 people a year have declined by 78%.⁴

In past centuries and with increasing frequency, significant and sometimes radical changes of paradigm have altered the complexion of society in countless ways. Paradigm changes are of many types: intellectual, political, economic, technological and social.

The Copernican and Newtonian revolutions, scientific positivism, the theory of evolution, theories of economic progress, psychoanalysis, Relativity Theory and Quantum Theory, cybernetics and complexity theory are just a few of the radical changes in ideas that have powerfully influenced our understanding of the world and our ways of relating to it. The political revolutions in England, America, France and Russia are prominent historical examples. Since 1980 successive waves of democratic revolution have swept through Eastern Europe, Central Asia and from there to every continent.

The Industrial Revolution, monetarization of the economy, rise of the modern corporation and later the MNCs, rise and spread of the Middle Class, emergence of the modern service economy, financialization, neoliberalism, globalization and deregulation mark significant changes in economic paradigm which have had profound impact on global society.

Recent technological revolutions in telecommunications and computing are only the latest in a long history of radical transitions brought about by new forms of energy, transport, production and communication.

The New Deal, the rise of the welfare state, protection and equal rights for minorities, and emergence of global civil society represent game-changing shifts in social values and policies.

3.2. Paradigm changes are rarely perceived before their onset

Paradigm changes tend to occur suddenly, unexpectedly and rapidly. After more than five centuries of incessant warfare culminating in two world wars, the idea that war in Europe would finally come to an end and within decades become almost unthinkable seemed mere wishful thinking in 1945. The founding of the European Coal & Steel Community, the European Economic Community, and the European Union marks a peaceful evolutionary paradigm change in political, social and economic dimensions of unparalleled speed and magnitude.

In the mid-1980s, it was simply inconceivable, even to the most far-sighted, that communist authoritarian governments, the Berlin Wall, the entire East-West divide and the very existence of the USSR would disappear within five years.

The revolutionary impact of the Internet on global communications, access to information, the porosity of national borders, global commerce, the rise of global civil society and now global education remained unforeseen and unexpected until after it was already well underway.

These facts must caution us against succumbing to the frustration and cynicism that naturally results from recent experience with the blind refusal, bureaucratic dithering and entrenched opposition to progress on abolition of nuclear weapons or climate change.

3.3. Paradigm changes are driven by deep forces that gather momentum beneath the social surface before emerging into view

Events that appear suddenly and unexpectedly have hidden origins in the distant past and are driven by forces that grow in intensity unseen until they are strong enough to precipitate radical change. The American Civil Rights movement launched by Martin Luther King in the mid-1950s achieved remarkable progress on racial equality in America within a decade. King drew inspiration from Gandhi's non-violent freedom struggle in India during the previous three decades. The forces that drove it can be traced back to Lincoln's inspired leadership during the American Civil War in the 1860s, which led to adoption of the 13th Amendment abolishing slavery. These landmark accomplishments were in turn driven by the growing movement for abolition of slavery that began in Europe during the 18th century and spread gradually from home countries to their colonies around the world. Underlying the whole movement was the growing aspiration and demand for freedom that stirred rebellion in the American colonies and revolutionary France. The value of Freedom has been an irresistible driving force that has transformed the world over the past three centuries, politically, socially and economically. It continues to spread and grow globally today in magnitude and intensity. Its impact on the complexion of global society in the future will be equally inevitable.

An understanding of paradigm change requires an appreciation of the deep drivers and longer term trends that build momentum for long periods before expressing themselves on the surface. Therefore an evaluation of the current prospects for significant paradigm change

necessitates an inquiry into the deep drivers that are in various stages of preparation and emergence today.

4. Deep Drivers

Are there deep drivers pointing to the possibility of a radical paradigm change today? An examination of emerging social forces by the World Academy leads to the conclusion that a nexus of driving forces of unprecedented scope and intensity are in various stages of development and emergence and that together they have the potential to effect radical social transition of unparalleled rapidity and magnitude. A detailed study of these deep forces is likely to provide a more realistic assessment of both the prospects and nature of potential paradigm change than continued preoccupation with the established barriers and forces that resist change. Here we will only delineate a few of the drivers that appear most salient:

4.1. Growing Connectivity

Increasing interaction between human beings has been one of the primary driving forces for the evolution of humanity. Language has formed the bedrock of global civilization and culture by making communication possible between individuals and groups, locally, regionally and now globally. Money has been the principal driving force for exchange of goods and services that has raised global per capita living standards twelve-fold over the past two centuries. Today the IT and communications revolution is connecting billions of people within a single global Metaweb, which will change social values, ideas, standards and behavior patterns in ways still difficult to imagine.⁵

The speed of technological innovation and dissemination are dramatically compressing the distance and increasing the velocity of social interaction. In the process they are multiplying social productivity and integrating the higher and lower levels of society to an unprecedented degree. It took India more than 50 years to install the first 37 million phones in the country. Since 2001, that number has grown to nearly a billion, placing cellular communication within the reach of almost every citizen. This development has resulted in low-cost global connectivity, greater access to information, a more level playing field, greater intensity of interaction and exchange, higher levels of social awareness and activism. It is aiding protest movements and political revolutions around the world. It is also providing a platform with the potential to dramatically accelerate the spread of all levels of education globally, abridging decades of tedious and costly educational institution-building into a few years.

The power of this deep driver can be further enhanced by conscious initiatives to offset the digital divide between different countries and levels of society, which continues to widen inequalities between levels of society even as it encourages upward movement of the lower levels of society.

4.2. Freedom & Democracy

As Alexander Likhotal points out, over the next decade, an increasingly integrated global economy functioning as a holistic entity will spur a deep reframing of ideas regarding global

governance.⁶ At the same time, demands for freedom and human rights will continue to increase. The concept of universal human rights can be traced back to earlier centuries and has been prominently advocated for decades, but never before has it acquired such effective power to alter social reality. The spread of democracy and education, global access to information, and the rise of global civil society are extending greater freedom and equality to women, children, ethnic and religious minorities around the world.

The recognition of basic human rights is the first step in releasing human energies from bondage and submission to arbitrary authority, inaction, resignation and inertia. The swelling of social and political protests during the Arab Spring followed by more recent events in Thailand and Ukraine are compelling indications of the future, rather than mere isolated outbursts. The same is occurring within societies as women, ethnic and other minorities press forward their clamor for a fairer share in the fruits of modernity. Once these energies have been stirred to awakening, they will grow into movements increasingly organized, powerful and effective, as the movement that ended colonialism subsequently spread around the world to liberate so many people from authoritarianism.

The compelling power of freedom is tempered by the domination of money power and plutocracy in the governance of both democratic and authoritarian regimes, the wide prevalence of political corruption, and the domination of the nation state in international affairs based on an archaic conception of national sovereignty. The recent uprising against corruption in India and the prosecution of political leaders in China, Italy and other countries are isolated signs of an inevitable movement that has yet to gain sufficient momentum.

4.3. Rising Economic Expectations

Rising political aspirations is in turn a compelling driving force for economic advancement. In the early 1950s former WAAS President Harlan Cleveland coined the phrase “revolution of rising expectations” to characterize the powerful surge of human energies that spurred rapid development of the Western World during the post-war period. Today the aspiration and expectation of a better life stir the minds and hearts of billions in China, India, Brazil and other emerging economies and the magnetic power of that dream is still spreading. The rise of Middle Class is an irresistible force for change. From 1980 to 2009, the global middle class grew by around 700 million people, to 1.8 billion, from roughly 1.1 billion. Over the next 20 years, it is projected to grow by an additional 3 billion.

Expectations have risen even among the have-nots who feel disenfranchised and left behind by the progress of more fortunate sections of the population. Rising levels of unemployment, especially among youth, have fueled frustration and discontent as reflected in the Arab Spring, the Occupy Wall Street Movement, Islamic fundamentalism, Naxalite extremism in India, and rising levels of violence among the poor in many other countries. Social tension and unrest have been further aggravated by growing inequalities.

Rising levels of frustration and unrest represent another compelling force for change. Ten years ago, India introduced its national rural employment guarantee program – the largest in world history – precisely because it was concerned by the impact of rural unemployment

and rising levels of inequality on civil strife and fundamentalism. A number of European states were compelled to reject or curtail austerity measures during the recent financial crisis because of increasing public unwillingness to accept recessionary policies that undermined social safety nets. The incessant clamor of the world's population for greater opportunity will compel states to adopt more far-reaching policies in the coming decade.

“Global capacity would have to quadruple in order to accommodate the aspirations of all youth the world over.”

4.4. Environmental Threats

Growing environment threats are another force for change. Current world GDP is around US\$ 60 trillion. Even at modest per capita growth rates in the emerging economies, it could well reach \$200 trillion before 2050, exerting enormous pressure on the earth's natural resource base and climate. Ecological threats alone have thus far not been sufficient to compel rapid, dramatic change, but it would be an error to underestimate the magnitude of the changes that have taken place as a result of growing public concern. Environmentalism has permeated the thinking and action of every nation. The concerted global approach to depletion of the ozone layer has been followed by an increasingly rapid shift to renewable energy, tightening of pollution standards and major efforts at conservation. The Fukushima tragedy was quickly followed by the decision of Germany and Switzerland to phase out nuclear energy. In the next 10 years, conflict between the aggregate powers of human civilization and the carrying capacity of the Earth's ecological systems will compel us to develop new patterns of production, trade and consumer standards.⁷

4.5. Freedom of Education

Education is a powerful leveler which awakens the aspiration for freedom and equality, equips youth with the knowledge and skills to rise beyond the achievements of previous generations, dissolves barriers to mobility, and opens doors of opportunity. We are now on the cusp of a new knowledge revolution – a revolution in higher education – that will liberate and empower hundreds of millions of youth in the coming decades. The total capacity of the world's universities will have to double within the next decade in order to accommodate an additional 95 million youth seeking higher education. That would require founding three or four new universities the size of Harvard every week for the next ten years. Global capacity would have to quadruple in order to accommodate the aspirations of all youth the world over. The tradition-bound, university-based system of higher education is patently incapable of meeting this surging demand through existing delivery systems.

The emerging technology of the internet has now created the potential for delivering affordable, world-class higher education to all humanity. For long the status, inertia and resistance of the established educational system made it difficult even for visionaries to predict when and how this would happen. Two years ago the genie came out of the box with the explosive emergence of the MOOCs – Massive Open Online Courses – starting with

Udacity, Coursera, EdX, and Khan Academy. From a mere 100 on-line courses in 2012 there are now more than 1200 and the number is growing at the rate of 2 per day. It is estimated that by 2020 about 50% of all college level courses will be offered on-line in the US and 10% worldwide. Initially English language based, now a third of all courses are available in other languages. Initially confined to North America, now nearly 80 percent of on-line students live on other continents.

And this is still just the beginning. The quantitative extension of access to free quality higher education made possible by the MOOCs is itself only the beginning of something far more important. The coming revolution will not only make education accessible to all, but it will also upgrade quality and unleash creativity and innovation in the field of education as never before. It will tear down the barriers that separate the ivory tower from the real world. It will eventually make available to students everywhere the world's best courses and instructors in their own language of choice.

4.6. Other Deep Drivers

Many other factors and forces are spreading globally and growing in intensity, which can contribute significantly to preparing the ground, generating the pressure and creating the opportunities needed for transition to a new paradigm. These include the rise of global civil society with shared values and a shared commitment to building a better world for all humanity; a revolutionary new set of powerful biological, biochemical, genetic, and materials science technologies, synthetic biology and human enhancement; and the progressive shift of power from centers of gravity from West to East, from North to South, and from nation-states to private actors; the widespread disillusionment with prevailing institutions of governance.⁸ A careful consideration and analysis of these and other factors will serve as a realistic basis for assessing the likely direction, character and potential impact of paradigm change in the years to come.

5. Theoretical Discontent

It seems ironic that the most powerful driver for change may be the dismal performance of prevailing social theory and policy in recent years, which has led to widespread public disillusionment. It comes at a time of triumphal progress for the physical and biological sciences which has resulted in monumental advances in fields such as computing, telecommunications, biotechnology, medicine and materials science. Never before have the lives of ordinary human beings around the world benefitted so directly and immensely from application of science and technology to promote human welfare.

But the surging technology mania has been accompanied by an increasing frustration and disillusionment with the failure of social science theory to provide intellectual clarity and effective policy guidelines for promoting peace, prosperity and human security. Advances in the natural sciences have so far outpaced concomitant advances in social science that each new technological advance poses new threats to the welfare of human beings it is intended to promote.

There are growing signs of this dilemma in many fields, but most conspicuously in the field of economics. The failure of theory and policy is largely responsible for rising levels of unemployment, widening inequalities, accelerating ecological destruction, dissolution of public trust in the social contract, increasing alienation and rising social unrest. This failure has led to the paradox of a world in which unprecedented productive capacities co-exist with unmet needs and rising levels of economic insecurity. The world today possesses all the capacities required to meet the needs of every human being, yet prevailing theory is grossly inadequate to reconcile human needs with social potential.

Unemployment is a case in point. Visions of future economic progress are blurred and blighted by misconceptions and fallacies regarding the prospects for employment generation due to the widely held belief that population growth, technology adoption and globalization are permanently eliminating the possibility of full employment. But the facts contradict this view. During the last sixty years of unprecedented population growth, technological innovation and globalization, growth of employment globally has outpaced growth of population. It is true that present policies aggravate unemployment, but it is important to recognize that rising unemployment is not at all inevitable. It is a result of current theory and prevailing policy, not intractable laws of economics.

The superabundance of money at a time of rising deficits and budget cuts is another symptom of theory and policy failure. Since 1980 global financial assets have risen from \$12 trillion to \$225 trillion, many times faster than the growth of the global economy. About 80% of these funds are being channeled into financial speculation rather than being invested to create new jobs and higher incomes in the real economy. The negative impact of these free-wheeling funds has led to increasingly volatile financial markets and growing pressure to curtail hidden subsidies to the financial industry, tax havens, tax evasion and corruption. Public resentment is increasing the pressure for game-changing rules leading to more equitable income and wealth distribution. Since 1996 income inequality in Latin America has already declined by more than 10 percent, an indication that change is possible on a continent that long maintained very high levels of inequality.

A third symptom is the utter failure of current theory and policy to reconcile aspirations for economic advancement with the carrying capacity of the environment and the rights of future generations. The rapid depletion of water, minerals, soil and energy resources is the result of current ideas and practices which incentivize rapid automation and unbridled resource consumption while taxing labor. The flawed, pseudo-scientific statistical measures employed to monitor economic activity and justify economic policy aggravate the very problems they are intended to remedy.

Growing disenchantment with prevailing economic theory is a necessary and important step needed to challenge and undermine the authority of outmoded ideas. In order to create the intellectual space needed for the development and discussion of more viable concepts and perspectives, it is essential to recognize the unsubstantial character of the emperor's theoretical garb. The work of the World Academy, Club of Rome, World Future Council and many other organizations can play an important role in aiding that process.

6. A New Paradigm in Thought

“Throughout history ideas have exhibited enormous power to change the world.”

Impatience, frustration and disillusionment with ignorance, inertia and blind resistance to change prompt many informed individuals and institutions to look for a shortcut to the new paradigm by focusing on pragmatic policy changes and avoiding what appears to be a useless, never-ending debate over conflicting theories and concepts. This view does not take into account the deep conceptual roots of the current

paradigm and the powerful influence of outmoded ideas on current policies. Throughout history ideas have exhibited enormous power to change the world. A new paradigm must necessarily be founded on a new conceptual framework. There is no shortcut.

A new paradigm cannot be achieved by trying to either reconcile or settle the on-going intellectual conflict between Keynesian and neoliberal economic concepts and policies or between those supporting the political rights of sovereign states and those advocating the need for democratic institutions of global governance. As in all matters intellectual, there is truth in both perspectives, but both truths are partial. A new paradigm cannot be brought about by insisting on any aspect of truth without reconciling it with contradictory aspects.

The existing paradigm is the product of a reductionist, mechanistic, materialistic mindset that divides reality into countless separate compartments and tries to deal with each individually, unmindful of its impact on all the other aspects with which it is related. A new paradigm requires a more holistic, synthetic, organic mode of thinking that recognizes the interrelationships and interdependence between different fields. It requires development of an integrated science of society based on common principles to replace the fragmented disciplines that prevail today.

Most of all, the new paradigm requires a new center. Prevailing theory is based on a fatalistic belief in the value and power of money, free markets, competition, balance of power, national sovereignty, information, scientific progress, technological innovation, institutional mechanism and other idols of past paradigm changes. The new paradigm needs to be human-centered. Its guiding star and foremost preoccupation must be the right of every human being to peace, security, welfare and well-being.

The world urgently needs fresh thinking to formulate a new intellectual paradigm that fully comprehends the interrelationships and interdependence of all dimensions of global society and social development, has as its goal to optimize human welfare and well-being for all human beings, and is based on the premise that democratic principles and universal human values are the only viable basis on which sustainable progress for humanity is achievable. It should be based on the realization that money, markets and technology are human creations intended to serve, not dominate or enslave, humanity. It should regard human capital as the most precious of all resources, a resource of virtually unlimited creative potential, and give highest priority to the full development and free creative expression of human capacities. Economic value should reflect real contribution to human welfare. Economic systems

should be founded on the principle that freedom and regulation go hand in hand, freedom for individual initiative and regulation to ensure the fairness and equity of social systems.

“In a market-based economy, access to gainful employment is the economic equivalent of the right to vote in political democracy.”

A fundamental change in thought implies also a fundamental change in values. Values are not merely utopian ideals. They represent the quintessence of the knowledge acquired by humanity regarding the essential elements for survival, growth, development and evolution, for peace, prosperity and human fulfillment. A new paradigm cannot be founded by institutionalizing the temporary inequalities that presently divide the welfare of people and countries from one another or by imposing sacrifices on future generations that we are unwilling to impose on ourselves. The most important paradigm changes of the past few centuries affirm the values on which future progress should be based. The most ancient formula for social wisdom promises to be the last – freedom, equal rights and justice for every individual and responsibility for the welfare of all.

7. Principles for a New Paradigm

The purpose of this paper is to set forth the rationale and justification for a collaborative effort of leading international institutions to identify the basic components of a new paradigm capable of addressing humanity’s most pressing challenges and exploiting its unprecedented opportunities. While it is not the intention to suggest the ultimate content, it may be useful to illustrate the approach with a few salient principles that have been discussed in recent conferences and publications.

- 1. Reform of Financial Markets:** The new paradigm needs to regard money as a social organization that capitalizes trust and is capable of multiplying the prosperity of all, rather than as a scarce material resource or power to be hoarded and applied for the benefit of a few. Financial markets originally developed as an adjunct to the real economy designed to pool capital for investments that meet human needs and generate employment. Today financial markets have become divorced from that original purpose and are left free to act in ways that directly undermine the effective functioning of the world economy. Less than 20% of global financial assets support development and activity in the real economy. Current policy regards the right to free speculation by the wealthy as more fundamental than the right of every human being to gainful employment and economic survival. As economy is a subset of society intended to promote social welfare, financial markets must be so regulated to support the real economy. A punitive tax on speculative financial transactions is just one of many feasible policy measures that could redirect tens of trillions of dollars into essential investments to create sufficient jobs for youth and the elderly, rapidly raise global living standards, reduce mortality rates, spread education, replace climate disruptions

with renewable energy production, extract drinking water from the oceans, and thereby eliminate the underlying sources of frustration and unrest that threaten social stability.

2. **Right to Employment:** The new paradigm must challenge the outdated notion that unemployment is either necessary or inevitable. In a market-based economy, access to gainful employment is the economic equivalent of the right to vote in political democracy. It needs to be recognized as a fundamental right. Monetary and fiscal policy are grossly inadequate mechanisms for achieving full employment during periods of rapid social transition. A re-examination of current economic and commercial policies will reveal ample scope for stimulating natural employment generation when full development and utilization of human capabilities are given top priority.
3. **Investment in Education:** Education is the prime instrument for conscious social evolution. Highest priority is needed to accelerate investment in education at all levels in order to raise levels of education globally to the level of OECD countries. Strategies should include the design of a world-class global system of higher education utilizing emerging technology for delivery of accessible, affordable, high quality, multi-lingual, multi-cultural, trans-disciplinary education and practical vocational training designed to more effectively prepare the young generation for commercial and social entrepreneurship, self-employment, employment and effective citizenship in democratic societies.
4. **Circular Economy:** The concept of circular economy strongly advocated by Club of Rome can dramatically reduce the consumption of both raw materials and energy, and the emission of CO₂ and other wastes. In a circular economy, sales of products would be largely replaced by leases, combined with exceptional service. Since responsibility for the material used in a product remains with the manufacturing company, strong incentives are created to fully exploit the material for as long as possible to earn maximum return on what already has been produced.⁹
5. **Global Governance & Security:** With regard to governance, international institutions need to be founded on true principles of representative democracy. The principle of sovereignty needs to be redefined to reflect the rights of the human collective to security and a fair sharing of the earth's abundant wealth. A truly cooperative global security system that enhances the security of all nations must replace the existing competitive system in which measures to enhance the security of one nation or group reduce the perceived security of all others. It must be based on the conception that law must be based on a codification of the public conscience, not on the vested interests of entrenched powers. International law must reflect the universal values and enlightened views of humanity rather than the negotiating power of governments. The basic premise of a global security system must be that war is illegal and that possession, use or threat of use of weapons of mass destruction is a crime against humanity.

This list of principles is intended to illustrate that solutions can be found to the entire range of challenges and opportunities presently before us. Some of them may appear unachievable

under the present political dispensation, precisely because they touch the root causes of current problems that we have thus far been unwilling to address. The greatest defense of the present paradigm is the premise that there is no better alternative. Impartial study supports the view that comprehensive solutions are indeed possible and that implementation of a new paradigm, no matter how difficult, could quickly usher in a world far more stable, secure, prosperous and just than the world we live in today. At the very least, this realization should dispel the fatalistic sense of helplessness that stifles human initiative and focus attention on the deeper issues that need to be addressed.

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4. *Ibid*
5. "Environmental Acceptability as the driver of New Paradigm" by Alexander Likhotal, a paper soon to be published in *Cadmus* Volume 2 Issue 2 in May 2014.
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Environmental Acceptability as the Driver of New Civilization

Alexander Likhotal

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Abstract

We are on a collision course with nature. And the underlying reason is that humans' creative capacity has largely bypassed their adaptive capacity.

Due to existing trends in 10 years the world will be changed dramatically.

These trends will change the social standards and human behaviour patterns; shift “centres of gravity” from the West to East, from the North to South, and from nation-states to private actors; spur deep reframing of global governance; force us to develop new patterns of production, trade and consumer standards; advance human capacities to and possibly beyond the limits of the traditional definitions of humanity.

The development of new policies to manage these challenges and to respect the realities of the natural world offers a myriad of positive opportunities to generate the new ideas, new policies and new partnerships that are needed to overcome the present crisis by reorienting and restructuring our economies on a more sustainable, resource-efficient and inclusive path.

But, however important economics and technologies are, achieving the required level of global systemic change and overcoming the seemingly immovable implementation gap that is blocking progress will require political leadership, vision and courage, rather than an adaptive strategy of small steps, and a revitalized multilateral governance architecture adequate to meeting the interconnected challenges reflective of the 21st century.

“The problem is not about the world; it is about us, it is about our inability to change our eternal belief that we will always be able to shape the world according to our needs.”

Crisis is the most quoted term today. The notion of crisis – multifaceted, systemic, on-going etc. – is used to explain the need for a new civilization shift. However there is no such thing as climate crisis, water crisis, or economic crisis, because these are all but the demonstrations of a much deeper problem we are facing, and the problem is not about the

world; it is about us, it is about our inability to change our eternal belief that we will always be able to shape the world according to our needs, while we are demanding more than the earth can sustainably provide.

We are on a collision course with nature. And the underlying reason, as I understand it, is that humans' creative capacity has largely bypassed their adaptive capacity.

The problem is also related to the transformation of liberal values.

The modern market economy was a natural outgrowth of the rise of liberalism and political democracy in the West. The extension of freedom and democratic rights to every citizen has gradually led to the emergence of economic democracy as well, in which each individual casts monetary votes according to his individual needs and capacity. In the absence of basic human rights, economic life as we know it today is inconceivable.

But the further evolution of this value has played a trick with civilization. In this consumption driven world mentality of the people has more and more started to be characterized by the belief in economic prosperity as an organic part and the guarantee of human freedom. Material prosperity has become implicitly related to the extent of individual freedom. Personal wellbeing gradually has turned from a tool of liberal values into a competing goal, devaluing these values. That is why the threat to prosperity standards (leading to unbridled economic growth) is seen as the erosion of freedom.

As a result of human development, personal status has become hostage to economic success, distorting the basic civilisation's ethical matrix.

However, due to existing trends and regardless of our acceptance, in 10 years the world will be changed so much that we will be surprised with our current concerns:

- An integrated global economy functioning as a holistic entity will spur deep reframing of global governance;
- IT and communications revolution connecting billions of people to rapidly expanding volumes of data will evolve into a Metaweb that will change social standards and human behaviour patterns;
- A completely new balance of political, economic, and military power will shift "centres of gravity" from the West to East, from the North to South, and from nation-states to private actors;
- A radically new relationship between the aggregate powers of human civilization and the Earth's ecological systems on which humankind depends will force us to develop new patterns of production, trade and consumer standards;
- A revolutionary new set of powerful biological, biochemical, genetic, and material science technologies, synthetic biology and human enhancement will advance human capacities to and possibly beyond the limits of the traditional definitions of humanity.

What are the immediate, predictable implications of these transformations?

Firstly it should be noted that 95 per cent of urban expansion in the next few decades would take place in the developing world, shrinking the population of the North to just 10% of the world's.

From 1980 to 2009, the global middle class grew by around 700 million people, to 1.8 billion, from roughly 1.1 billion. Over the next 20 years, it is likely to grow by an additional 3 billion.

Exploding growth in the developing world has already created there a vast new middle class, 66% of which will live in Asia by 2030. That is a lot of new consumers! How will they live, eat, shop, and travel? Will they emulate the worst habits of the developed world, or lead the way as better stewards of the planet?

Secondly, current estimates of global GDP are around US\$ 60 trillion and even at modest per capita growth rates in the emerging economies of the world to meet poverty targets we could easily see a world GDP (as we conventionally measure it today) closer to US\$ 200 trillion by 2050. Three worlds sitting on our present one world but stretched to the limits with regard to consumption and production patterns.

During the 20th century, the world increased its fossil fuel use by a factor of 12, whilst extracting 34 times more material resources. Today in the EU, each person consumes 16 tons of raw materials annually, of which 6 tons are wasted, with half going to landfill. In absolute figures some 65 billion tons of raw materials entered the economic system in 2010, and this figure is expected to grow to about 82 billion tons in 2020.

As a result of our economic activity half the tropical forests in the world – the lungs of our ecosystems – are gone; by 2030, at the current rate of harvest, only 10% will be left standing. Ninety per cent of the big fish in the sea are gone, victim to wanton predatory fishing practices.

We are polluting our lakes, rivers and streams to death. Every day, 2 million tons of sewage and industrial and agricultural waste are discharged into the world's water resources.

A comprehensive recent global study, published in 2010 in *Nature*, reported that 80% of the world's rivers are now in peril, affecting 5 billion people on the planet. Fully one-third of global water withdrawals are now used to produce biofuels, enough water to feed the world.

There is no possibility of proving the linkage between economic activity and natural disasters, but the frequency and intensity of the natural disasters have so increased in recent decades that it would be a little incautious to deny such a link. There were 78 recorded disasters in 1978; last year there were 385, and during the last two years we have already witnessed five mega-disasters. Recently, Hurricane Sandy was a reality check in the United States, putting a very clear climate change imprint on the results of the electoral campaign for the first time.

A lot has already been said about climate change, and I think we need to realize that if we fail to put a price on and reduce carbon emissions now, and if we continue to rely mainly on fossil fuels, we will damage our economy. This is not just an assumption; those who argue the converse are failing to account for the costs of damage already caused by climate change. Just five years ago, Stern Report assumed that by the year 2100, 1-2% of global GDP would be gone if temperatures increased by 2.5 degrees Celsius.

A 2012 study by the DARA group and the Climate Vulnerability Forum concluded that failure to act on climate change already costs the world economy 1.6% of global GDP amounting to US \$1.2 trillion in forgone prosperity a year, while rapidly escalating temperatures and carbon-related pollution will double costs to 3.2% of world GDP by 2030 – rising to 11% of GDP for Least Developed Countries. Therefore, the costs of failing to price carbon and reduce emissions are already very real, not to say that climate change and the carbon-intensive economy are leading global causes of death today, responsible for five million deaths each year – 400,000 due to hunger and communicable diseases aggravated by climate change and 4.5 million carbon economy deaths, due mainly to air pollution.

Next. A new digital revolution is coming, this time in fabrication. It draws on the same insights that led to the earlier digitization of communication and computation, but now what is being programmed is the physical world rather than the virtual one. Digital fabrication will allow individuals to design and produce tangible objects on demand, wherever and whenever they need them. Widespread access to these technologies will challenge traditional models of business, trade, and consumer behaviour.

Wohlers Report 2013, published by Wohlers Associates as an in-depth analysis of the worldwide additive manufacturing industry, reported earlier this year that the market for 3D printing (used interchangeably with additive manufacturing) in 2012, consisting of sales of all products and services worldwide, grew 28.6 per cent to \$2.204 billion, up from \$1.714 billion in 2011. Wohlers Associates expects strong double-digit growth to continue over the next several years, forecasting the market to approach \$6 billion by 2017 and reach \$10.8 billion by 2021.

Lux Research, publisher of another report that analyses 3D printing's commercial potential, has forecasted that 3D printing to grow into an \$8.4 billion market by 2025 (up from \$777 million in 2012), with sales of products and services to the automotive, medical, and aerospace industries leading the way. The report, titled *Building the Future: Assessing 3D Printing's Opportunities and Challenges* predicts rapid and widespread adoption for medical applications as 3D scanning technologies, printers, and materials fall in price. The medical market, pegged at \$11 million in 2012, is projected to grow to \$1.9 billion by 2025.

Already today changing 30% of personnel in manufacturing produces 25% gain in productivity and 56% of corporations of US and Europe are ready to switch to robottechnics. So far only the lack of adequate technology prevents this.

Current understanding of the relationship between employment and technological change is insufficient, and adjustment to this structural shift in the nature of work has been slow.

Many countries, companies and institutions continue to believe that the market will correct employment disparities. This view may be too optimistic, especially with a deficit of high-skill workers and insufficient supply of jobs for low and medium skilled workers.

Production requires consumers but the revolution in robotics and energy will make many old professions extinct. How to stimulate the demand and provide the unemployed with work and livelihood in these circumstances? The problem will be not to supply consumers with necessary goods, but rather how to ensure that products have sufficient number of consumers.

Economic models and political systems built upon a desire for “full employment” will require revision. There is evidence of movement towards a more fluid employment relationship, whereby people are holding portfolios of activities, including paid employment, unpaid employment such as internships or volunteering, self-employment, and caring for children or the elderly.

Steady adoption of a portfolio of activities may lead to a different view on economic output and performance generated by the workforce, and shift tax and regulatory burdens away from labour in order to facilitate an inclusive, productive and flexible workforce fit for this century.

Therefore, one of the major problems for the world economy will be employment policy.

But not only the world will differ; we are transforming ourselves – we will differ!

The hourly Internet traffic will soon exceed the annual internet traffic of the year 2000!

The world’s ICT ecosystem uses electricity equal to the combined annual power generation of Japan and Germany – as much electricity as was used for global illumination in 1985. The ICT ecosystem now approaches 10% of world electricity generation. Or in other energy terms, the zettabyte era already uses about 50% more energy than global aviation uses. Reduced to personal terms, although charging a single tablet or smartphone requires a negligible amount of electricity, using either to watch an hour of video weekly consumes annually more electricity in the remote networks than the power consumption of two new refrigerators in a year.

Computers have become a part of our lives. All praise this as an enormous achievement. The achievements are undeniable and plenty. But what about the downside of this transformation?

Evidence is piling up that our reliance on Internet-based digital appliances and functions, such as the search window on your smartphone, affects not just the way we live; it affects our ability to think. In the December 2011 issue of *Scientific American*, Daniel M. Wegner and Adrian F. Ward explore the phenomenon in “How Google is Changing Your Brain.”

Internet, Google Glass, 24/7 online, direct intelligence interconnectivity: are we becoming part of a Meta-web? Looks like soon we will have to pay not to be online!

Computer – mobile computer or wearable computer – contextual web will soon be guessing and then probably shaping your interests and social targets.

Will humans become part of a giant “global software”, a real and not a virtual matrix?

“Human! We used to be exactly like them. Flawed. Weak. Organic. But we evolved to include the synthetic. Now we use both to attain perfection. Your goal should be the same as ours.” – Borg Queen, *Star Trek: First Contact*

What will happen to our individuality? Personality? Creativity? Goodbye, soul-searching; hello, facts-at-fingertips?

Social networks have reduced our vocabulary from 200,000 words to 20 words. Faulkner has become too difficult, Tolstoy – too long, too boring...

Already today half of the adult population in Russia do not read books at all. A lot more are “undecided”. Another 6% responded to the poll saying they read “one a year”, I suppose they lied, ashamed to say they do not read at all.

Russia is not unique. According to recent polls sixty per cent of Americans have not read a book since leaving school. Only 6 percent now read even one book a year. According to a very familiar statistic that cannot be repeated too often, the average American’s day includes six minutes playing sports, five minutes reading books, one minute making music, 30 seconds attending a play or concert, 25 seconds making or viewing art, and four hours watching television.

We have stopped writing. Why bother? There are convenient computer buttons. Psych neurologists argue that handwriting, fine motor mental skills, fine finger movements reflect the subtle movements of one’s mind and soul, the subtlety of perception ... But who will listen to neuropsychiatry today? Only a “modern luddite” would believe that it is necessary to write in their great-grandfathers’ way and voluntarily give up the “achievements of civilization”! Every day we have new gadgets that make our lives more and more comfortable and convenient!

But it’s a fact that psychomotor retardation (also known as “psychomotor impairment” or “motor mental retardation”) involves a slowing-down of thought in an individual.

In order to write a letter, one needs many times higher intelligence, a fundamentally different intelligence, than the intelligence required to push the buttons. Writing a letter requires a complex combination of movements of the mind and muscles. Just compare: fingers (and soul) of the violin virtuoso – and finger, pressing the play button on a machine... You can train a hare to push buttons in the circus. Try to teach it to write....

As a result already today if you google Homer you might get more references to Simpsons than to the great blind author of the Iliad and the Odyssey, and if you try Caesar you risk to get more Caesar salad recipes than references to the great historical general.

Consumption has become the god of our civilization. Last year an American shocked the audience of the NBC “The Docs” show when he offered to sell his left testicle for 35 thousand dollars in order to buy a Nissan 370Z sports car. In Goethe’s *Faust* the devil seduced man; today people stand in line to be seduced by consumption.

All these developments will dramatically and inevitably exacerbate the dual challenge of stimulating the growth needed to provide jobs and well-being to citizens, and of ensuring that the quality of this growth leads to a sustainable future.

One obvious conclusion is that the expected increase in demand cannot be met, unless there is nothing less than a revolution in the way we use natural resources. Our economy will require a fundamental transformation within a generation – in energy, industry, agriculture, fisheries and transport systems, and in producer and consumer behaviour.

“When a system is fundamentally flawed, making it more efficient or accountable will not solve the problem.”

Euphemisms like ‘green economy’ or ‘shared sustainable growth’ will not help. When a system is fundamentally flawed, making it more efficient or accountable will not solve the problem. This model locks the world in continuing crisis – social injustice and the danger of environmental disaster. What we need today is to decouple economic growth from the use of energy and materials; simply increasing resource efficiency will not take us where we want to be. I am not questioning the objective of increasing energy and resource efficiency; essentially, we have no choice. What has to be questioned, however, is how production and consumption are being organized today.

Rapid price increases experienced for many commodities and energy in recent years are already encouraging businesses to develop more efficient processes, but price signals will not be enough to stimulate a wide-spread transition to a new model.

In searching for new models for economic development, two important issues must be distinguished and addressed. First, how to produce more in order to meet increasing demand while making less of an impact on resources (often referred to simply as “decoupling”). Second – even more fundamental – how to limit the increase in overall demand. The challenge is immense as currently we are in a completely contradictory situation where the more successful we are at promoting growth on the existing model, the greater and quicker will be the environmental and social disaster. We need a total reversal of fortunes. Fortunately, many good and workable ideas are already in the pipeline, and beginning to be operationalized. The opportunities for innovation and creativity are enormous.

One emerging solution focuses on the creation of a circular economy (detailed in the works of Walter Stahel, Karl Wagner, Anders Wijkman and the MacArthur Foundation). Today’s business models are based on maximizing the volume of sales of different products. In a circular economy model, sales of products would be largely replaced by leases, combined with exceptional service. Since responsibility for the material used in a product remains with the manufacturing company, strong incentives are created to fully exploit the material as long as possible to earn maximum return on what already has been produced. This results in vastly decreased consumption of both raw materials and energy, and therefore less CO₂ emissions and waste. Meanwhile, profitability rises: a win-win proposition. Some large corporations are already embracing the circular approach: Rolls Royce has replaced sales of jet engines to

some airlines with leases; Michelin rents car tires for heavy vehicles and is responsible for their being maintained, upgraded and recycled as waste product; and Xerox offers copying services instead of selling photocopiers.

Another key component of a circular economy is the maximizing of recycling, reusing and reconditioning – rates of which remain senselessly low. According to a report released in 2011 by the UNEP, recycling rates of metals are far lower than their potential for reuse. Less than one-third of some 60 metals studied have an end-of-life recycling rate above 50% and 34 elements are below 1% recycling, yet many of them are crucial to clean technologies such as batteries for hybrid cars and the magnets in wind turbines. For example, CO₂ emissions are reduced by more than 90% when aluminium scrap is used instead of bauxite, but only one-third of aluminium demand is supplied by secondary production. The primary production of tin requires 99% more energy than secondary production, but the recycling rate is less than 15%. Putting valuable, reusable metals into landfills is a terrible waste. In addition, an estimated 50 million tonnes of electrical waste is generated each year and no more than 15-20% is being recycled. The rest ends up in landfills or incinerators. This e-waste is hazardous but also a potential source of valuable and scarce rare Earth materials vital for manufacturing smart phones and tablets.

The MacArthur Foundation's report *Towards a Circular Economy* was presented in early 2012 and backed by a group of leading multinationals, including B&Q, British Telecom, Cisco and Renault. It states that:

“A circular economy is an industrial system that is restorative by intention and design. In a circular economy, products are designed for ease of reuse, disassembly and refurbishment – or recycling – with the understanding that it is the reuse of vast amounts of material reclaimed from end-of-life products, rather than the extraction of new resources, that is the foundation of economic growth. Moreover, the circular economy shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse, and aims for the elimination of waste through the superior design of materials, products, systems, and, within this, business models.”

That such a fundamental shift in perspective, away from the industrial system we have today, is supported by a group of multinational companies, and attracted attention at the 2013 World Economic Forum in Davos, is a sign that these concepts are gaining traction. While there is still significant private sector resistance to change, many forward-looking businesses are accepting that indefinite material growth on a planet with finite and often fragile natural resources cannot be sustainable, and that by embracing sustainability they can both reduce risk and exploit opportunities for new markets.

For example, in recent years, General Electric has earned large profits from its “Ecomagination” energy-efficient products. Siemens is also focusing on the rapid expansion of markets for sustainable products, energy efficiency, and greener buildings. The rapid growth of the renewable energy sector worldwide has been driven in part by big technology

companies, including Google, Microsoft and Apple, investing in clean alternatives to power their own operations.

Complementary to the rise in interest in the circular economy is the rise of “collaborative consumption” initiatives, particularly in urban areas. Businesses such as Zipcar, City bikes, Freecycle, AirBnB and Ebay are creating communities of people sharing resources, avoiding waste and saving money. They are examples of positive behaviour change precipitated by self-interest as well as a desire to be more environmentally and socially responsible.

Another business concept that is gaining attention is companies pledging to become “net positive”, meaning that their positive impacts on the environment and society should outweigh the negative ones. Early (partial) espousers of this initiative include Coca-Cola, which aims to be net positive on water for its bottling process, and BT, which aims to be net positive on carbon emissions. So far, no large company has been able to claim to be net positive over its entire operation, but it is a start.

The next question is, how can these isolated initiatives be massively scaled up to propel society in the direction of a more resource and energy efficient, inclusive economy? How can we move society in the direction of the circular economy? Because relying on pricing mechanisms alone will not be enough.

A fundamentally new transformational leadership and political will are what is most needed to provide effective responses to these new challenges. So far, government claims to prioritize sustainability have been largely rhetorical and have failed to set out clear, practical action plans. Counteracting the formidable economic forces that still benefit from current production systems (i.e., increasing revenue by selling more stuff) will take coordinated, proactive policy action on many fronts. Creating the right incentives and conditions will in turn motivate (or obligate) businesses to do what they do best – innovate and create new markets.

Rapid price increases experienced in many commodities and the energy sector in recent years are already encouraging businesses to develop more efficient processes, but price signals will not be enough to stimulate a widespread transition to a more sustainable economy. This transition will create a great deal of temporary dislocation, and there will inevitably be some losers in the process. Policies will therefore not only have to give clear incentives, but also be able to manage the resulting change, as well as considerable resistance and opposition.

Proponents of new development and business models have put forward a number of “framework ideas” (Club of Rome, WAAS):

Reorienting markets by valuing natural and social capital

Our economies are based on incorrectly measuring and valuing a wide range of goods and services essential to maintaining a safe, secure and sustainable planet. This systematic

“A fundamentally new transformational leadership and political will are what is most needed to provide effective responses to these new challenges.”

inadequate valuation (both under and over) is at the root of many major problems, such as the degradation of ecosystems, depletion of biodiversity and the destabilization of the social fabric of families and communities. Natural and social capital must be properly valued in economic terms in order for the economy to be “real” and to be built on real values. This will result in energy price increases, as the social and environmental cost of carbon and water use is taken into account, but this will accelerate integrated solutions to climate and energy challenges. The most vulnerable in society can be protected from the impacts of these changes.

“Overcoming the seemingly immovable implementation gap that is blocking progress will require political leadership, vision and courage.”

Creating an alliance of sustainability winners

Create an alliance of the speedy ones, of the “game winners”; there is no need to wait for everybody (including traditional energy suppliers) to wake up to this call. The “carbon justice” approach can propel low carbon technologies to the South. An alliance of champions on effective climate policy from Europe, Asia and leading “developing countries” (90% of the world’s population) can help provide the revolutionary shift needed to recalibrate our economy, protect our environment and achieve sustainable development. The “early birds” will be the best placed to seize the opportunities of transition and develop strong markets and new jobs in innovative industries.

Governments acting as custodians of public interest

A prosperous and stable society requires a proper balance between, on the one hand, the role of the market to stimulate innovation and the effective use of resources and, on the other, the role of government as the custodian of the common interest. Governments should provide a clear and predictable framework of law, supervision and regulation within which the markets can operate to achieve a balance between private rights and benefits and the prosperity of the community. Strong regulatory mechanisms that can safeguard common public interests are urgently needed.

In addition, several policy instruments that could help maximize our chances to shift towards a sustainable, equitable and “happier” world by triggering the necessary transition include:

- Agreeing on ambitious, binding targets for resource efficiency to encourage the maximum reuse and recycling of materials;
- Promoting innovation by giving priority to sustainable design and closed material loops;
- And reforming tax, for example, by lowering taxes on labour and raising them on the use of virgin materials.

The development of new policies to manage the challenges and to respect the realities of the natural world offers a myriad of positive opportunities to generate new ideas, new policies and new partnerships that are needed to overcome the present crisis by reorienting and

restructuring our economies on a more sustainable, resource-efficient and inclusive path. But, however important economics and technologies are, achieving the required level of global systemic change – and overcoming the seemingly immovable implementation gap that is blocking progress – will require political leadership, vision and courage, rather than an adaptive strategy of small steps, and a revitalized multilateral governance architecture adequate to meeting the interconnected challenges reflective of the 21st century.

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Change the World by Changing “Economics”

Karl Wagner

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Abstract

We live in a world of opportunity – the opportunity to use the insight generated through the multiple crises humanity finds itself in to transit into a much more liveable, sustainable and equitable society.

A paradigm change seems to be taking place, a movement for change seems to be in the making, but at the same time there is a widespread feeling that things are getting worse instead of better and there is no guarantee that change will lead us into a better future in the next few decades.

To effectively guide the direction of change we need to address the root causes of today’s global challenges and take a close look at what drives human society and human beings. In doing so we realize that we are looking at a holographic picture which contains different layers, which are interdependent: Human biology; values and belief systems; the changing narrative underlying the development of human society; economics and governance and the many tools as well as special interests, support and uphold the outdated paradigms.

The one element which influences all people nearly every day and is behind just about each and every crisis is the theory and practice of current economics. The article explores the debate on current economics and proposes mechanisms of change.

1. Introduction

We live in one of the most dynamic and important periods of change humanity might have ever seen. A time of fundamental change comparable with the change from a hunter and gatherer society to an agricultural society, the change from a feudal society to a democratic society or the change from an agricultural society to an industrial and technology-driven society. What is different in these periods of change are the speed and the geographical scope.

But we also live in a time of multiple crises and negative developments and trends. Unemployment, inequality, the financial crisis, biodiversity depletion, and degradation of ecosystems, climate change – you name it, we have it. There is a growing feeling amongst civil society representatives, foundations and citizens from all walks of life that we are winning skirmishes and battles, but losing the war in our strife for a sustainable, equitable and just world – despite the multitude of positive initiatives and the billions spent on good causes. Or at least, light at the end of the tunnel doesn’t seem to be appearing yet.

The reasons for this feeling are manifold but lie certainly in our current inability to address the roots of the problem. Even thinking about fundamental approaches is not encouraged. The debate constantly revolves around “what goes wrong” and “where we should be” and ignores the crucial question: “How are we going to get there?”

“The various challenges humanity faces are in fact aspects of a systemic crisis, which to a large degree is related to our current economic theory and practice and our underlying values and belief system.”

This short paper is the result of a process that I was asked to guide by a couple of foundations that were not satisfied anymore with winning small battles alone. Their question was: “If we are really serious about winning the war, what is it that we should do?”

Few dare to even ask such fundamental questions, as those who ask them tend to be regarded as victims of their own hubris or as outright crazy. However, this key question should be explored and addressed without taboos on a broad scale, foremost by civil society organizations, many of which believe and claim that they do this anyway, but looking closer reveals they rarely do so.

It is becoming more and more evident that the various challenges humanity faces are in fact aspects of a systemic crisis, which to a large degree is related to our current economic theory and practice and our underlying values and belief system. If we want to change the world for the better we will have to find ways of addressing the real causes of this systemic crisis and we will probably have to be content that there is no “magic button”, no “silver bullet”, but plenty of “silver buckshot”.

What stops us from trying? For one it is evidently the magnitude of the task, as underlying root causes seem too fundamental, big, nebulous and fuzzy to tackle. But if the apparent complexity is our challenge, then why not try to find a way through this complexity, which allows us to identify clear and pragmatic lines of action, like trying to change the global economic system, which stands out as the key driver behind the global challenges we face?

A second key reason is directly linked to ourselves: Civil society, which should drive the process, has become sectoral and institutionalized to a certain degree. Instead of pursuing a vision for the world, it is increasingly absorbed in its own vision. And, let’s face it, we all are somehow caught in the system we want to change and opting out is not an easy undertaking. Being a hamster in a running wheel and having to go faster and faster just to remain in the same place have become widespread feelings, especially for the Western middle class. And for many, the sheer complexity of the world seems too much to digest, so they have stopped trying to make sense of it.

Those who benefit from the current system and do not want any change plus all those who are wedded to the old worldview and have difficulty finding a way out of it, effectively build a barrier for natural change to happen. They force humanity directly and indirectly to stay

on a detrimental course of rising inequality and looming social unrest, rising CO₂ concentrations, waste and depletion unless we, the concerned and committed citizens of this world, change this course.

The resulting brainwash is so subliminally intense, that it is difficult to free one's thinking to a degree that enables us to dream and realize a different and much better world in earnest. We are to a certain degree moving within the conceptual framework of systems that we know we need to change.

The bad developments are and seem to be massive and tend to block the view on all the positive aspects of development, which are as massive but differently structured and not that easy to spot in their entirety.

Hundreds of millions of people are engaged in making this world a better place. Everywhere around the world, groups of people try to prevent damage from occurring or helping those in need by healing. This is a web of life, largely invisible, stronger than one might think.¹ Consider the sheer number and the scope of initiatives for a world that works better in the long run for all humans. Still, the planet is staggering.

A movement is already in the making. Organized civil society might not be on the move (the smaller the organization the less powerful it is as institutionalization seems usually linked to size), but "ordinary" people certainly are powerful. Beliefs are changing in a big way; segments of a new "earth citizen" lifestyle are becoming part of everybody's life; paradigms are changing in front of us and if there weren't any special interests that profit from the way the world runs downhill we would already be in a different and more sustainable world.

The aim of this paper is to open a debate on how foundations, civil society and committed citizens can address the root causes of the global challenges facing humankind – moving from short-term thinking, acting and investing in sectors that are involved in long-term engagement on systemic issues and analysing consequences from root causes. Actually doing it will require a fresh approach, characterized by entrepreneurial spirit and the ability to take risks and to move outside the box of well-established programming and way of doing things.

We should all team up to create an exciting drive towards a transition into a sustainable and equitable world – one so exciting that artists, creative professionals, intellectuals, concerned citizens and movements engage in a peaceful revolution to create a sustainable, fair and equitable world. It will require cooperation and working together and also a return to a vision for the world as the main objective for civil society. And it will require personal commitments – no matter how small.

It is impossible to speak in general terms for all people and cultures across the world. China, India, Brazil and Russia, to name a few, are on a very different trajectory and experience their own paradigm change. However, the roots of the problem originate to a large degree from the economic thinking and practice developed, promoted and exported by the West and if we want to change things at the fundamental level, then it makes sense to go to where it all started. The West could be in a unique position to be a driver of change towards a sustainable and equitable future.

2. A Hologram

2.1. The Matrix

By looking at the systemic crisis and its causes we are in fact looking at human beings with all their complexities, intricacies, defaults, strengths and weaknesses and we are also looking at a human society that has evolved over thousands of years. Root causes, drivers, consequences and effects can be portrayed as a matrix of interconnected and interacting layers. At the very bottom we find the biological framing of our species, the hormone system, the intuitive level and the peculiarities of our brain, going back as far as the reptile brain.

The next level could be called our “cultural level”, where values and belief systems are located. This is the level that determines how human society is essentially structured and operates. Values and beliefs guide our lives, opinions, mechanisms and tools of society, but tend to be deeply hidden within our personality and our specific culture.

“One detrimental characteristic of both the political and economic systems is their current focus on short-term approaches, decisions and actions.”

Our main societal instruments, namely how we organize economic and political activity (mainly through various versions of capitalism and democracy) represent the next layer. One detrimental characteristic of both the political and economic systems is their current focus on short-term approaches, decisions and actions. We live, however, in a period of time where challenges are complex and require long-term and holistic answers instead of sectoral and short-term responses. So, we have created institutions and mechanisms which deliver the opposite of what is required.

A number of tools support these instruments and help keep the system on its course (quarterly financial reporting helps to maintain a focus on financial short-term profit, elections secure political short-termism) and often the debate addresses the tools instead of the underlying root causes.

This matrix produces partly positive results (lifting people out of poverty, the constant evolution of technology which would cover all our needs and wants), but to a large degree negative ones (with impacts ranging from inequality to fragmentation of communities and from plastic in the oceans to climate change).

One could argue endlessly about what kind of levels make up the human being or the human society, but this is not the point. All levels are interlinked and interdependent and function like a hologram, where each splinter of a picture contains the entire picture. If we want to address the root causes of the systemic crisis we will need to take this into consideration.

2.2. Values

Discussions about today’s problems and the challenges facing humankind or individuals, be they climate change, unemployment, financial crisis, destruction of nature, poverty,

crime or the way people interrelate and live together, turn rather quickly into a (unfortunately mostly superficial) debate about values. There is a general feeling that bankers and others in the financial and political worlds ought to live more by values and there is a growing sentiment that the absence of higher values is undermining the stability and viability of modern society, the welfare of human beings and the health of the environment.

Values are fundamental for humans. They represent the quintessential cumulative wisdom of humanity – the essential principles for survival, peace, harmony, development and human fulfilment. At the same time it seems nearly impossible to address them in any other but a banal or deeply philosophical way.

Values are the principles we use to guide our way through the possibilities and problems of life. They are the main drivers behind our societal instruments that shape the world we live in. Our theory and practice of economics do not rest on natural laws, but on our underlying values. It is our choice whether to have an unequal or equal society; it is not given by nature. It is our choice whether to build a world which can nurture and feed generations for hundreds of years. There is no natural law which compels us to overuse and deplete resources. It is our choice whether we want a world where billions live in poverty and where climate change already risks our grandchildren's future, where excessive individualism and narcissism reign instead of solidarity, caring and sharing.

It is our value-based choice which determines whether we live in a world of opportunities for all or in a world where only a few benefit from the riches of planet earth.

Values are often so subliminal that we never realise they are there until they either fall away or some crisis makes us question what values we lived by. Often the question about values ends up with earnest groups proposing codes of ethics. These often seem to hark back to a world of certainty and authority, which many feel they have left far behind.

Our present problems of unemployment, rising inequality, alienation, and social unrest can best be understood as a reflection of the insufficiency of prevailing values as they are being implemented in society. The increasing returns for speculative investment to the detriment of the real economy and employment make implicit value judgments that weigh the system towards the wealthy. This applies equally to the inordinate political power of the wealthy.

There is a growing recognition that the values guiding the course of our society are not the ones which can lead us into a better world. Some of the values we have lived by for many decades have led humanity straight into a world of separation, isolation, depletion and systemic crisis.

A sustainable and equitable society will not be possible if we cannot create a society built on fully recognizing the value of the human being – the most precious of all resources, the values of “respect” and “responsibility” for our family, our neighbour, our community, our fellow human beings, for other species and the wellbeing of life on this planet. These values will not arise as a result of codification (ethics or rules of conduct) but from the character

(ethos) of a culture or community. Business ethics for example is a list of rules and regulations which people might be inclined to follow if they have the right ethos.

2.3 Need for a New Narrative

Values are transmitted through many different media, through families, traditions and cultures in various ways – ranging from festivals to how the young are taught. As the human species is a story-telling species, myths, stories, narratives (the overarching purpose of stories being told) are the main transmission belts for values.

“The problems confronting us today are a human creation.”

The narrative humanity is living today is a fantasy that borders on illusion. It neglects serious challenges based on a blind faith in science and technology. It discounts the value of the human being and nature. It mesmerizes us with visions of unlimited consumption and opulence. While the world fantasizes, problems mount and threaten the stability, security and viability of society. The narrative we need is one which maximizes security, welfare and well-being of all human beings. It is a narrative that fully develops our individual and social potential while conserving the sacred inheritance nature has bestowed on us.

Converting this narrative into a compelling vision backed by facts and figures is one of the most essential steps needed to effect a radical change of course for humanity.

Narratives provide guidance for individuals as well as for communities, small or large. At the highest level they guide the development of human civilisation. “Progress” was a modern and powerful vision for the second half of the 20th century and it seems that while “progress” as a vision has largely disappeared, it has not been replaced with another emotionally inspiring and uplifting vision with the power to explain the world in simple terms and to provide direction for the development of human society. “A sustainable world” is largely a technological, intellectual concept, but not an emotional one. A global society is in the making, but people cannot feel it yet.

But there is a wave of fundamental change building up and it is made of the many small changes taking place. People are in fact developing their vision for their world and the powerful global vision we are missing might be emerging from countless personal, local and regional visions.

2.4 Belief Systems & Worldviews

Our narrative is a construction, which has numerous layers. It is a conglomerate of elements originating from different periods of historical, intellectual and social human development. Together, these layers determine how we, as individuals or as a group, view and understand the world.

There is nothing inevitable about where we are today. We could have told, and can choose a different story and therefore a different world. The laws governing economy are man-made. The problems confronting us today are a human creation. In order to change course and to

navigate a better world for humanity we need to understand the assumptions which have led us on our current course and correct them properly.

Today's dominant belief systems originated in the West during the period of enlightenment and have been influencing the rest of the world for many years. However, what started out as humanistic ideas with the wellbeing of the community in mind has been distorted over the last few centuries. We now find ourselves in a world where competition is more important than cooperation; where material values trump non-material ones; where caring for the community has been replaced by excessive individualism; and where "liberty" (originally the right of every human being to live according to his/her beliefs and opinions, as long as it did not harm or negatively impact on others) has turned into the freedom of overconsumption and selfishness.²

"Financial markets have become an end in themselves, increasingly divorced from their original intention, destabilizing and suppressing healthy economic growth."

The original thinking on which today's economy is based is 200 years old and comes from a time when "the market" was still the city market, where everybody knew everybody. Its underlying purpose was seen as improving the wellbeing of a maximum number of people and not the maximization of individual benefit and financial profit.

At that time few people lived on earth and the planet's resources seemed endless. No wonder that the value of natural resources was mainly seen in terms of extraction costs and sales profit.

Economy has now become the master narrative.³ This is basically the result of a several-decades-long effort by a rather small group of people, spearheaded by politicians such as Reagan and Thatcher in the 80s who were promoting the free market ideology, deregulation, privatization of the commons and egoistic values.

Today's economic worldview builds not only on false interpretations of economists like Smith, but also on an interpretation and simplification of Charles Darwin's theory of evolution. Competition is heralded as a key driver and "survival of the fittest" as nature's recipe to succeed and conquer. The capitalists of the Industrial Revolution readily took up this interpretation of Darwin's theory as it rationalized their inhuman behaviour towards workers as being normal and "natural".

However, a new and different belief and evidence have emerged these days that while "competition" is an important driver in evolution it is by far not the only one and maybe not the most decisive one. This probably is "cooperation". Imagine the consequences if the belief that competition is the only real driver of development were replaced by the belief that "cooperation" is the key driver or at least equal to "competition"! This change of narrative alone would have a major impact on business practices.

The values underlying the expansion of the finance industry, which seemed so sexy to many during the late 80s and 90s are now perceived as not only wrong and misleading, but also as obscene and damaging to society as a whole. Modern economic dogma disregards the fact that financial markets developed during the Industrial Revolution to support the growth of the real economy, employment and real wealth generation at a time when enormous capital investment required the pooling of resources. Today, financial markets have become an end in themselves, increasingly divorced from their original intention, destabilizing and suppressing healthy economic growth.

“Both world wars have served as tipping points for the creation of international institutions.”

Despite the negative trends of the last few decades, we are seeing positive signs of movement in a new direction: a move from competition to cooperation; from a purely materialistic worldview to one which is linked more on a spiritual level; from a life defined by a living standard to a life of well-being. The various initiatives and the number of intellectuals and philosophers exploring a new paradigm might be small, but they likely already represent an “elite”, which will trigger broader change.

3. Change

3.1 A Short Theory of Change

When asked how he went bankrupt, Ernest Hemingway famously replied “First gradually, and then suddenly”. This is an apt expression of how change tends to happen. Yesterday there was no sign of anything moving and today the revolution is on. Change happens first gradually and then suddenly, following often the dynamics of exponential growth. As with population growth, for a long time the build-up is not visible and cannot be noticed. The curve runs more or less in parallel to the line at the bottom. Then suddenly the curve goes upward, getting steeper and steeper, until it crosses a tipping point.

What happens is the build-up of a critical mass. This build-up is not visible before the mass “explodes”. It can be anticipated, but cannot be foreseen in detail (some people can to an amazing degree).

A consequence of this dynamics is that big changes tend to be an accumulation of small changes. Furthermore, it is valid to say that if I change my world (by changing my behaviour here or there for instance), then I am effectively changing the world. It is rarely a single very important person who changes the world. It is the people who produce the pressure, mood, need and energy for change to happen. So you or your friend, as long as you are active, is equally important to a top-notch decision-maker. In fact, you are the actual decision-maker.

It is possible to interact with the dynamic process of change in various ways and via various mechanisms through targeted intervention at a critical point in time, especially when considering that big changes tend to be an accumulation of small changes.

3.2 Elements of a Change Process

There must be a cause, something wrong to be righted. This can be a moral issue, an issue of justice, an issue originating from outdated scientific understanding etc. Change is something natural, part of the evolution of nature and human civilisation. Blocking natural change is therefore seen from a certain point as a wrong move that needs to be corrected.

Change is essentially driven by people's emotions, visions and aspirations. The intellect plays a role, but it is human feelings, such as compassion, which are the actual drivers of change. Any change initiative needs to take the emotional factors into account, because only when you touch upon emotional issues can you reach out to people's hearts and minds. It is about what kind of world we want to live in and about making people understand that it is in our hands to create this world.

In each movement, which creates change, decisive moments and incidents occur, when a balance tips. These tipping points relate many times to catastrophic events, as people have the tendency to primarily learn through small and large catastrophes (both world wars have served as tipping points for the creation of international institutions).

Fortunately, it is not only catastrophes that can serve as tipping points. Works of art (books like *The Jungle* by Upton Sinclair, and *Uncle Tom's Cabin* by Harriet Beecher Stowe), photography, sometimes even legal cases (as was the case with slavery or abortion for instance), technology, especially in the field of mass communications (bookprinting, radio, internet, development of PR and advertising) or social media, can have an electrifying effect. Artists are in fact highly underestimated actors of change.

Human sacrifice tends to be at the heart of what becomes a decisive moment, but so are personal statements of opinion and commitment. An individual, who overcomes fear and starts to act according to his/her belief disregarding all sorts of consequences, often turns the tide by being a role model, inviting others to follow suit.

Change processes are always also a power struggle, as those who benefit from the status quo usually have no interest in change and will resist it with the power they can afford and muster. Proactive change processes require actors who understand how power is used, detected or neutralized. This understanding flows into the conceptualization of change efforts and is incremental to change.

4. Moving Into Action

4.1 Finding the Entry Point Into the Matrix: Economics

If one wants to develop a pragmatic action plan to tackle the root causes and underlying drivers of the systemic crisis which manifests itself in so many ways, where should one start?

As the various layers of the matrix are inter-connected, any topic can serve as a point of entry. In fact, the point of entry is less important than understanding the linkages.

Values are fundamental and come up quickly in all debates since all basic questions such as “What kind of world do I want or want my children to live in?” boil down to questions on values. No matter their race, nationality, creed, gender, occupation or level of education, it seems that people are broadly in agreement in their perception of what a desirable future should look like. A world characterized by honesty, dignity, empathy, decency and gratitude. It is the simple joys of life that make life valuable; it is the shared relations with other people, be they family, friends, neighbours, that make a life rewarding.

Values are difficult to address though (but not when we address them as part of a holistic approach). “Belief systems” are intellectually better accessible and, as they are intrinsically linked with values, could provide an easier approach to engage “heart and mind”.

However, the most powerful and decisive driver behind what’s going wrong is the current economic paradigm. No matter which negative global development we want to stop or change, in the end we will have to replace our current system of theory and practice of economics, which have become counter-productive and detrimental to our future, with a new one. Current economics interacts with every person just about every day and it is a root cause behind so many of the crises humanity faces at a global level. Addressing economics seems to be the right point of entry. If there is anything that comes close to a magic button, it is economics.

Economics is not a natural science like Chemistry or Physics; it delivers what we want it to deliver. Whatever its achievements, they are what we want it to achieve and not the inevitable outcome of a natural law like gravity.

Economics and governance have over the last hundred years determined to a large degree the course of society and by and large they have served us well. But economics has also morphed into today’s material-driven, wasteful consumer society and a 1% versus 99% world and there is an increasing agreement amongst critical economists that it will not help if we tweak theory and practice of economics here or there. A fundamental rethink and restructuring are needed.

4.2 Finding Entry Points Into Economics

There is a broad, emotionalized and global debate taking place around economics. The debate has different levels: Underpinning the debates about technical issues such as GDP, taxes, distribution mechanisms, finance and banking is a more fundamental but largely under-represented moral and philosophical debate which is concerned with the role and purpose of economics in our current and future societies and the values that should guide them.

4.2.1. The moral, philosophical, and emotionally important debate can be summarized in key questions

- *Purpose:* What is the purpose of economy, what should economy deliver?
- *Growth:* What is it that should grow?
- *Progress:* What should we call progress?

- *Rights*: Do future generations have rights?
- *Value*: Which values should underlie our economic activities? Do we properly value the world's natural resources?
- *Earth*: Does what we do to the planet matter?

4.2.2. Key questions and topics relating to the technical debate

- *Scarce resources*: What is the most effective way to harness the world's scarce resources and humanity's vast undeveloped and untapped potential – to convert physical limits into a catalyst for human creativity and innovation and rapid social evolution?
- *Financial markets*: What is the role of financial markets and how far do their present functioning really serve that intended purpose?
- *Tax systems*: Why do we tax payroll making labor more expensive while incentivizing capital investment that eliminates jobs?
- *The lack of proper valuation of natural resources*: Why do we pass on the burden to future generations by pricing scarce natural resources far below their replacement level?
- *Monetary and trade policies*: What is Money? On what is it based? How and for whose benefit is it created? What is the impact of the current international monetary system on the real economy and employment?
- *Alternatives to the GDP, which better measure success of society*: How far are we really progressing economically when the real cost in terms of unemployment, inequality and destruction of the environment is taken into account? What would be the impact of measuring economic performance with indicators that more truly reflect the impact of economic activity on human welfare and well-being?
- *Regulation of banking and finance sector*: Is financial speculation a natural right if it endangers the stability of the economy and welfare of the majority?
- *Unemployment*: What is the true cost to society of unemployment and underemployment in economic and social terms? What is their cost in terms of human physical and mental health?
- Is there any policy mix by which we could obtain near full employment within the framework of a market economy?
- *Corporate law forcing corporations to give priority to shareholder interests*
- *Corruption*
- *Harmful subsidies and possible incentives*
- *Influence of wealth on politics and regulation*
- *Corporate lobbying*: What is the impact of corporate lobbying and money power on the functioning of democracy?

- *Rising inequality and its negative effects (also in rich countries)*
- *Extreme poverty*
- *A wide and diverse range of debates about the negative consequences of current economics: Waste, overfishing, climate change, rainforest destruction, depletion of natural resources, plastic, ocean, toxic chemicals.....*

4.2.3. The Outlines of a New Economy

The outlines of a new economy have been taking shape for a long time and there are a growing number of people, economists and even some enlightened politicians who support the notion that the overall purpose of an economy should be to provide income and meaningful occupation to a maximum number of people while at the same time safeguarding and strengthening the global natural resource base.

4.2.4. To achieve this we need a transition

- From unbridled financialization to financial markets that support job creation and equitable income growth.
- From technology for its own sake to technological applications that raise the quality of everyone's life.
- From quantitative growth for growth's sake to qualitative development of human security and well-being.
- From a dominance of material, egoistic and narcissistic values to values supportive of a healthy planet and a healthy human society.
- From a flow-through economy where resources basically move from the mine to the landfill to an economy which minimizes resource use by keeping it within a cycle.
- From the dominance of large, global economic systems to a better balance between local and global economic structures
- From a consumer to an earth citizen attitude
- From deregulation to an enlightened and stronger regulatory framework where public good costs are internalized

In principle there is considerable agreement on the need for fundamental change and a wide consensus on where to go. The unanswered question is, how will we get there?

4.3 Operational Recommendations

1. The collapse of the Soviet empire has shown that a system can be perceived as being made of solid steel, while in reality it is a hollowed-out earthen giant, ready to collapse. This might be true of much of the current (old) system, which is built on old beliefs and outdated paradigms. Joint efforts might be all that is needed to initiate the transition

towards a world built on respect and responsibility, where we see ourselves as earth citizens instead of consumers. Many of the topics where considerable effort has been undertaken to create change (seemingly without much success – we are debating the pitfalls of the GDP for more than 50 years) might in fact be low-hanging fruits.

There is no need to secure broad agreement before acting. In fact, we are witnessing many types of initiatives started by individuals, which immediately “snowball” and are picked up by large numbers of people, producing more impact than anticipated. The accumulated impact of these initiatives might already do the trick.

It is however important that individuals understand, as expressed above, that when they change their world they effectively change the world. They should not act out of a feeling of guilt, but out of a feeling of doing the right thing and be proud of having the character and the strength to do so. Individuals are the true decision-makers and they should act on their own pace.

Civil society organizations can aid this process by returning to the vision for the world as their first priority.

2. As stated above, we can view the situation and its causes as a matrix or better as a hologram. In practical terms: When addressing one element within the matrix we will always discover all the layers of the entire matrix. It is therefore essential to serve all layers even when aiming just for a particular one.

The distinct layers of the economics debate are:

- It is a values debate
- It is a debate on fundamental principles of economic, political and social theory
- It is a debate about belief systems
- It involves emotions
- It relates to people’s daily life
- It is a multi-layered technical debate, partly easy to follow, partly incredibly complex

The world currently addresses a technical aspect without addressing values and underlying beliefs and only a handful of people discuss values without getting emotional about their beliefs. We are addressing values without linking them to the technical level risks or considering them.

From an operational point of view it means that any kind of concrete target needs to be looked at from different angles. The conceptual approach requires a focus, but it should be functional at all levels described above.

3. Leverage investment by building on the interrelatedness, addressing the matrix with a systemic approach. Several projects should be linked in a mutually reinforcing manner and use different starting points. This can be done within an organisation or across organisations or as part of a funding strategy from a foundation.

4. To increase the chances of success it is advisable to free each project from limiting conditions and structures. Better invest in people than in organisations.
5. Link “theory” with “practice” by establishing mechanisms by which cutting edge thinkers interact with cutting edge practitioners such as campaigners in several day brainstorming settings.

4.4. Possible Areas of Intervention

4.4.1. Start thinking more fundamentally and radically in the truest sense of the words

There are many opportunities for intervention and the examples that follow are by no means a complete list. Some opportunities might sound insignificant, but a closer look reveals they aren't. Some might look entirely impossible, but trying them might prove this assumption wrong.

Fresh thinking is required and this implies freeing ourselves from our own limitations and from what others believe or tell us when they ask us to be realistic.

“The current concept of “Growth” is one of the intellectual pillars of today’s misguided economics.”

4.4.2. Address the societal objectives of economics, implicit assumptions and the values behind current economic theory and practice

The aim should be to get the economics debate out of its intellectual expert ivory tower and bring it down to the level of normal people. This can be done by raising basic moral, philosophical and essential questions, thereby initiating thought-processes and debates on what the true purpose of the economy should be.

4.4.3. Enter the values debate

By and large people from all walks of life, no matter the nation, race, creed, age, societal standing or income share a similar view about how they would like the world and human society to be: They will value honesty over dishonesty; kindness and compassion over cruelty and thoughtless behaviour; a decent life for themselves, their family and their children; decent health and education affordable for all; a safer and cleaner environment to live in; a level of prosperity that takes them out of poverty; a sense of belonging to a community; a strong sense of a purpose in life, and let's be frank, possessions and some vain desires.

4.4.4. Go to the theoretical roots of the root cause; one of them is the current concept of “growth”

An entire edifice of underlying, misleading beliefs has been built around “growth”: Growth in the sale of products and services has become the measure for progress of society and it is heralded as the only means to generate new jobs and as the only viable strategy to increase equality through re-distribution. In fact, current thinking on material growth has permeated our entire thinking. It is a bandwagon for the commoditisation of the world where all or everything is seen as either worthless or of financial value. The current concept of

“Growth” is one of the intellectual pillars of today’s misguided economics. It has been criticized since the 60s but little has changed in reality. A concerted effort might show that the time is ripe to seriously question the concept of “material growth” at the level of values and beliefs and at a technical level.

A fresh approach might mean focusing our energies on creating new ways of measuring society’s success, which can provide a better and more meaningful guidance. The immediate aim would not be to replace the GDP, but to promote alternatives, as there will most unlikely be a one-size-fits-all alternative. The old GDP might then still be around, but reduced to merely explaining a sector of economic activities. A lot of efforts have already been taken in this direction for many years and it might just require the right kind of team effort to make a difference.

“Universities are still based on old thinking and thereby delay the transition to a new economy.”

4.4.5. Challenge Corporate Law

A fundamental point of criticism on stock-listed large corporations is the primacy that is given to the interests of anonymous shareholders (short-term financial profit) and their helpers, largely the finance industry. The latter has become a destructive force by the accumulation of power through financial intermediaries such as hedge funds, investment vehicles and new financial instruments.

At the bottom of this is legislation, which obliges the management to primarily pursue the interests of stakeholders and the legislation that grants a company personhood.

People by and large have learnt to mistrust large companies. There would be no backing for a handful of wealthy shareholders or finance institutions having priority over the planet and the people as such. An initiative whereby corporations will be mandated through a change in law, that the interests of planet and people have a priority over the interests of single shareholder, which would probably receive overwhelming support. Sure, it will need explanations, but there are more difficult challenges.

4.4.6. Prepare for legal action against fossil fuel companies

The fossil fuel and energy companies, the mining sector and the food industry are probably the most problematic corporate sectors and it is especially the fossil fuel companies that block real progress for humanity, partly through strategies of manufacturing doubt⁴ initially developed by the tobacco industry.

This is not the only parallel. The fossil industry probably acts against its scientific insight, as the tobacco industry did and if this turns out to be correct then they should pay for the damage their actions have caused, or rather the damage that has been caused because they spent a lot of money on sowing doubt to prevent meaningful action from being taken. Preparing for a large lawsuit might yield interesting information and send a signal to the fossil fuel industry that their actions might not be without consequences for their shareholders.

4.4.7. Build consensus on the principles of an alternative framework for teaching new economics

Higher education is still organized around old thinking: It emphasizes a sectoral approach and teaches “past paradigm” knowledge. Nearly all universities teach the concepts of old economics and it is no wonder that the new thinking finds it difficult to gain ground when students are still being taught outdated concepts and thinking.

This is especially true for “economics”. Universities are still based on old thinking and thereby delay the transition to a new economy. Online courses and summer schools could bridge the gap and provide innovative teaching to economics students, thereby changing the university system from outside rather than from the inside, which might be a costly and expensive undertaking. In addition it would meet a lot of resistance from representatives of the old school and corporate university donors.

4.4.8. From consumer to earth citizen

The consumer mass culture did not come about naturally; it is the result of a deliberate and consistent effort.^{5,6}

It is not entirely clear if the many initiatives from individuals, groups of people, communities and cities to develop alternative means of living will soon merge into a much more powerful system opting out of the current hyper-consumerism but there is reason to believe that a targeted intervention could come at the right time.

This could be true for the Western countries, which have been part of the consumer culture for more than seven decades. It may not be true for all emerging countries such as China, India or Indonesia, where the aspiration for a Western lifestyle is met with the opportunities and the wealth to pursue material growth.

There is a lot of movement and people are changing their lifestyles, but considering human nature, will it be enough to bet on intellectual understanding and ethos?

We need holistic and long-term approaches and solutions. But our most important societal systems (capitalism and democracy) are built on short-term thinking, mechanisms and dynamics. Official reactions to our systemic challenges tend to be sectoral and not holistic (rebuild New Orleans instead of investing into clean energy).

Human beings tend to have a preference for decisions which grant them immediate gratification, so we might need to look at measures which can bring long-term benefits while providing short-term gratification. There seem to be plenty of hooks, as any measure, which increase the disposable income of citizens. Examples include:

- Increasing the longevity of products and the minimum product guarantee
- Eliminating waste in all its forms
- Reducing the personal financial vulnerability caused by being part of a global financial system by avoiding debt; by investing sustainably and not into murky derivatives; by switching to alternative banks; by keeping basic expenses low

- Gaining control of one's life by becoming part of local structures
- Strengthening and getting involved in all systems where goods and services are shared

All these initiatives result in a reduction of household spending and waste and could, combined with intellectual arguments and ethos, make a difference.

A powerful and largely neglected opportunity to participate in changing the economics of this world is through what kind of food we buy. By purchasing food everyone can make decisions about the environment and macro-economics on a daily basis. Food is where the rubber hits the road. Buying food means deciding over the use of chemicals; the destruction of rainforests, the support for local farmers; waste; suffering of animals; our own health and much more. Everybody can join this movement by starting to become more and more conscious, informed and selective about the food he/she buys.

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The Crisis of the Existing Global Paradigm of Governance and Political Economy

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Abstract

This article seeks to underline the central challenges to world order that are outcomes of our current system of global, social, power and constitutional processes. The article outlines these major problems which it is suggested represent a crisis for the future trajectory of human survival and well-being. The paper then uses the problem of the emergence of transnational criminal activity in order to underline the limits of the current global paradigm of governance. In effect, in the criminal law context the jurisdiction of sovereign states to attack the problem of transnational crime is hedged with severe limitations. The most important of these limitations is the fact that the jurisdiction over crimes by sovereigns is limited by the territorial character of the definition of sovereignty. Thus a sovereign has a limited capacity to control and police criminal activity whose main locus of operation is generated outside of the territorial reach of the sovereign state. This essentially means that the element of global governance generates a juridical vacuum which permits organized crime to flourish outside of the boundaries of the state but at the same time, having the capacity to penetrate and corrupt the social, political and juridical processes of the sovereign state. The article explores the effort of the UN to provide some form of response to this crisis in the form of an international agreement.

The most important global expectation about global governance is reflected in the Preamble of the UN Charter and it is authorized by “we, the people” of the earth/space community. That expectation includes the high priority humanity gives to international peace and security; the reaffirmation of faith and fundamental human rights, in the dignity and worth of the human person, and equal rights for men and women and nations of whatever size. It also underscores the importance of the global rule of law as well as the promotion of social progress, better standards of life, and expanding freedoms. That is the promise. However, at the practical level the institutions of global governance have been to a large extent a captive of their own history. That history emerged with scholars in the late 1500s and early 1600s (Bodin and Hobbes) and later was given a juridical imprimatur in the Treaty of Westphalia (1648). In the early 19th century Bodin, Hobbes, and Westphalia were given a powerful juridical imprimatur when John Austin published his influential book *The Province of Jurisprudence Determined*. In effect, from Bodin to Austin we have the developments from scholarship, to political agreement to creation of a jurisprudential foundation for the

notion of the territorially organized sovereign state. The sovereign state became the currency of international relations, diplomacy, international law, as well as a powerful limitation on the force and efficacy of both international law and constitutional law.

“What is needed is an economic paradigm that is not confined to a single state or sovereign but a paradigm that functions within the context of a global, social and political process and responds to the problems that emerge from this process from a global inclusive perspective.”

In the 20th century the sovereignty idea contained no obvious constraints that could limit a drift into a global war (WWI). Moreover, the creation of the League of Nations system and the Covenant of the League was itself limited in a context of facilitating international peace and security by state claims to sovereign absolutism. At the end of WWII the victorious powers adopted the Charter of the United Nations. The Charter reflected ambiguity of its authority resting in “we, the people” and the residual strength and ambition of sovereign state powers, claiming frequently the competence to trump activities challenging their ambitions and interests. The current paradigm is thus responsible for generating problems that now seem to challenge the survivability of humanity, as well as undermine the prospect of global policy and practice that moves in a trajectory that secures humanity’s wellbeing for the future. We list several of the most obvious scenarios where the state/sovereign-centered paradigm is limited in its capacity to respond effectively to the crisis of humanity’s future survivability and wellbeing. These are listed as follows:

1. ***The crisis of the global war system.*** States no longer have an effective monopoly on war making. States have been involved in privatizing the functions of the military with unforeseeable consequences. There continues to be the emergence of mercenary-like forces for hire in the global environment. The proliferation of the flow of arms and armaments in the global arms market remains significantly unregulated. The existence of weapons of mass destruction (nuclear, chemical and biological) still represents a major crisis regarding the acquisition of the technologies and assets of these weapons systems falling into the hands of terrorists groups or organized crime cartels.¹
2. The growth of civil society deviance may threaten world order when it develops into forms of apocalyptic terrorism, state terrorism, organized crime, human trafficking, global drug production and distribution, and trading in small arms and/or components of mass destruction.
3. ***Global political economy of radical inequality.*** Conventional economic theory seems to lead a global race to the bottom. More wealth is produced than ever before and greater inequality is produced as well. Greater wealth concentrations often result in plutocracy which favors the wealthy and greater alienation for the impoverished. What

is needed is an economic paradigm that is not confined to a single state or sovereign but a paradigm that functions within the context of a global, social and political process and responds to the problems that emerge from this process from a global inclusive perspective.

4. ***The depreciation of a human right to development, a depreciation that undermines the value potentials of human capital for the improvement of the human prospect.*** Clearly, the right to development is a human right of global dimensions and requires a global solution to effectively respond to it. The solution here is beyond the parochialism of national sovereignty.
5. ***The importance of a viable ecosystem for the survival of humanity requires policy making that is beyond the nation states' competence.*** In short, global warming and climate change are matters of inclusive global concern. All must participate because all have a stake in preserving a viable ecosystem for all.
6. ***Human demographics and human survivability.*** The radical population increases raise the question of whether food security and accessibility to clean healthy water may be put at risk when earth's population exponentially increases. Demographic growth may well challenge eco-social and economic capacity of the earth to indefinitely sustain such increases without important radical innovations in birth control, food production, and water conservation. These issues transcend any particular nation state.
7. ***The global capacity to respond to natural catastrophes (tsunamis, earthquakes, hurricanes, asteroid collisions).*** It's now well accepted that such catastrophes require global action because the capacity of any particular sovereign is limited in this regard.
8. ***The global health crisis (AIDS, malaria, TB, Ebola, etc).*** It is clear today that any emergent global pandemic will be beyond the capacity of any single sovereign state. Such health threats are really beyond the current paradigm.
9. ***The global crisis of human rights and humanitarian values.*** Notwithstanding the vigorous advocacy for the promotion and defense of basic human rights, it is still the case that we have a great human rights crisis on the planet. At the heart of this crisis is the muted claim of unlimited sovereign absolutism. The human rights crisis cannot be solved exclusively within the sovereign state. It is a global problem that implicates the global authority of "we the people."

The issues listed above represent a crisis for global humanity and as well underline a weakness of the existing paradigm which is a state sovereign dominant paradigm. This underscores the need for new and fresh thinking, nothing short of a new paradigm for understanding and responding to the global crisis of our time. To provide a more detailed explanation of the limits of the state sovereign paradigm we provide an overview of the background and possible value for humanity of an important UN initiative to enhance a global paradigm of governance with regard to a particular problem that defies the exclusive

authority of the sovereignty approach. In this initiative we underscore the effort to strengthen the global rule of law, as an indispensable element for a new paradigm of global governance.

The initiative that we focus on is the Convention Against Transnational Organized Crime. In general, this instrument defends the rule of law precept as a stabilizing and transformative component of a world order that honors and respects the dignity of all the people. How then does the UN convention against Transnational Organized Crime,² in general, impact on the major themes just specified? What does the convention have to do with the rule of law and the earth-space community?

1. The Convention, Organized Crime and Sovereignty

The convention represents recognition of the harsh reality that crime is not simply a localized phenomenon. Indeed, it recognizes that a huge segment of crime is international; it is transnational; it is indeed global. In particular, the identification of a critical segment of global crimes namely the phenomenon of ‘organized’ crime, underlines the particular threat that this form of crime presents for world order, and in particular the rule of law foundations of world order.

The historically territorial nature of criminal law had a close correspondence with the principles of juridical and political sovereignty.³ The functions of sovereignty directly conditioned the reach and efficacy of the prescription, application and enforcement of criminal law, with serious territorial limitations.⁴ This undermined the efficacy of the state to control and regulate crimes having trans-state or transnational character. From an international perspective, the global system is still largely a constitutionally state-centered system.⁵ The system has limited the power of organized global society to control and regulate crimes of the magnitude represented by transnational organized criminal syndicates and gangs. In effect, it provides a loophole in our global system of law and public order. It is a dangerous loophole because it tolerates a juridical and political vacuum within which organized crime can thrive.

The success of transnational organized crime means that vast amounts of ill-gotten proceeds are outside the reach of organized political authority. These proceeds are better seen as bases of power and material resources for the support of organized transnational crime. They permit it to become globally institutionalized, to become competitive for power, to become a threat to states large and small. Indeed, organized crime might be seen to represent an alternative normative order (a negative utopia) which supports brute force over law, order and civility.

The Convention against Transnational Organized Crime is a truly significant milestone in international law and cooperative world order. The problem of organized crime as indicated is an especially dangerous threat to world order and to the basic principles of the UN Charter, which is the living symbol of the constitutional order upon which the contemporary international rule of law is based. Transnational organized crime is not simply antisocial, apolitical and economically exploitative, it is much more.

Traditionally, crime is a socially deviant aberration. Organized law enforcement must simply be effective in the detection, apprehension, prosecution, trial, conviction and punishment of the perpetrator. The perpetrator is often randomly created. Even when working in groups, the deviance is *ad hoc*, occasional, and certainly, like all deviant behavior, a threat or potential threat to public order and civic freedom. When crime gravitates from the occasional, isolated and random experience to systematic organization and sustained practices of institutionalized deviance, it is a particularly dangerous threat to world order. Indeed, when organized crime marshals vast resources such as capital, functionaries and instruments of violence, the attack on public order moves from the random and anecdotal to the systematic and sustainable. Organized crime moves from the challenge of deviance to the challenge of an alternative structure of normative priority. Law and authority become challenged by a 'non-law' scenario and the 'values' of an immoral and amoral negative utopia, where force is the rule and legal authority is extinguished. Organized crime is thus a clear and present threat to the sovereignty of the state, especially democratic states whose authority is rooted in the people. Large and powerful states may be more capable of limiting the power of organized crime to compromise and or challenge their constitutional and public order foundations. Smaller states may indeed be more vulnerable to the assaults and challenges of organized crime activity. It is thus possible that some sovereign states may be politically vulnerable to the penetration of cartels of organized crime syndicates. Some states may be effectually drug controlled or indeed subject to levels of penetration and corruption so that they may be fairly labelled 'thug' controlled. When the level of corruption becomes so great, the term 'kleptocratic' state may be appropriate.⁶

The core characteristics of the challenge of organized crime to the sovereignty and independence of the sovereign state may be that its power rests on the unrestrained use of brute, arbitrary force, intimidation and coercion. Moreover, its reach may corrupt the vital social process of the state such as business, governance, family, education, labor, law, and even possibly the institutions of religious affirmation. The threat organized crime presents to sovereignty, self-determination, independence, good governance and democratic values is serious. But the threat of organized crime to the state is even more critical. Organized crime is often unconstrained by territorial or political boundaries. Political and juridical sovereignty may be limited by the restraints inherent in sovereignty itself. Thus, territorial boundaries crucial to sovereign law enforcement may be a hindrance to the control of systematic, institutionalized crime, sustained by bases of power that are rooted in violence, with vast unaccountable financial resources and animated by the capacity to corrupt and coerce the legitimate institutions of governance and civil society. Organized crime in this context threatens the very constitutional foundations of world order; it is thus a threat to the rule of law, indeed to the idea of law itself.

The political, geographic and economic 'space' between sovereign nation states has long been seen as an arena where organized crime can function without an effective process of control and policing. There is no 'super sovereign' with a centralised mechanism that might readily fill the spaces between sovereigns. More than that, weak states and new states, often styled as emerging market states, may be stuck with powerful institutions of organized crime.

South Africa is a case in point. The corruption of law enforcement processes during the period of repressive apartheid created a vacuum in law enforcement. The new, post-apartheid democratic order was challenged by the penetration of organized crime groups during and immediately after the miracle of transformation. The legacy the new regime had to confront was an incredible wave of crime, a huge quantum of which was inspired by the ‘imperialist’ character of transnational criminal syndicates. It is also remarkable how speedily the new authorities acted to reorganize law enforcement agencies and to enact vital legislation to empower the authorities to attack organized crime in the new emerging democracy.⁷ Even older states, unaccustomed to the overreaching nature of organized crime, have felt the influence of its activities.⁸ Weaker states may not be able to effectively bring the power of law to constrain or limit the power of organized crime. Indeed, its power might penetrate and undermine the legitimate institutions of state and society in many contexts.

The convention thus attacks a critical world order problem. It seeks to fill the cracks in the global, political and juridical vacuum created by a system primarily organized around territorially based nation states. It also recognizes the problem that sovereignty may be abused, through inadvertence, incompetence or gross astigmatism, to create safe havens for the operatives of organized crimes as well as their assets. The convention prescribes a situation in which safe havens will become increasingly rare. It recognizes that cooperation among sovereign states is a necessary basis for effectively attacking the threat posed by organized crime.

The limits of traditional extradition are apparent when we recognize that traditional extradition law does not permit the exercise of jurisdiction over the movement or laundering of money.⁹ Asset forfeiture and international controls over bank secrecy mean that the convention effectively prescribes a serious limitation on safe havens for the assets of organized crime.¹⁰ Very importantly, asset forfeiture has long been known to be a critical tool in the fight against organized crime. With procedures and rules to facilitate investigations, particularly regarding the status of assets, as well as cooperation in the protection of witnesses¹¹ and the general framework for broadening the mutuality of legal assistance,¹² there has been a major step forward in the development of an effective regime in the fight against organized crime. A quick perusal of issues of bank secrecy, forfeiture,¹³ witness protection¹⁴ and money laundering¹⁵ suggests that the cooperation required to make this regime work is itself the outcome of the harsh and brutish reality of transnational organized criminal behavior. It also suggests that there is a changing idea of the relationship of the international rule of law to the idea of state sovereignty. The expression of cooperative sovereignty¹⁶ in this kind of treaty is a vital and important constitutional principle of the new millennium.

2. International Rule of Law Responsibilities and Harsh Global Realities

The millennium coincides, as noted, with the post-Cold War world. Former U.S. President George Bush once visualized this world as a ‘kinder and gentler’ world. Bush’s optimism coincided with an unvarnished armed attack on Kuwait by Iraq. The central problem posed by the attack was that it was a clear violation of one of the core principles of international

constitutional order,¹⁷ which prohibits and declares unlawful acts of aggression. Although the Cold War was awash in acts of 'indirect' aggression or aggression through surrogates, the specific use of armed forces to extinguish the sovereignty of an independent state immediately raised the stakes of the post-Cold War world, as a world subject to even the attenuated restraints of the rule of law, and the rejection of even minimal restraints.

As the Gulf War came to an end, the disintegration of former Yugoslavia presented a huge threat to human rights and humanitarian concerns. In effect, thoughtful scholars contemplated a 'non-law' state characterized by so called 'ethnic conflicts'. At the back of the ethnic cleansing policies of the Serbian and other ethnic elites were challenges to the rule of law in a global sense. If ethnic cleansing and ethnic conflict were both incomprehensible and not amenable to the restraints of law, did policy makers then not contemplate the rejection of the juridical and normative restraints of the UN Charter itself? Were these crises matters of global concern or were they indicators of the limits of global concern, and global law?¹⁸ Was the stress on 'limits', a disguised claim to repackaged isolationism, to parochial identifications, to chauvinism and unilateralism at the expense of responsible, cooperative internationalism? Defining the 'universal' scope of the international rule of law is vital to any lofty vision of world order based on universal ideals of security, peace and dignity.

As the international community slowly responded to the problems of South-East Europe, the ethnic conflict in Rwanda spiraled out of control when Hutu militias systematically butchered nearly a million of their Tutsi countrymen. These problems (and many others) underlined the idea that the rule of law is not a national or international luxury, a symbol of pure impractical lofty idealism. Rather it is also a critical restraining element in the core global issues of peace, security, human rights and a minimal respect for humanitarian concerns; it was and is a vital component of the effort to constrain globalism's harsh realities as well.

The crises of South-East Europe and later Rwanda led to a level of international institutional paralysis which culminated, somewhat belatedly, in a renewed interest in the rule of law foundations of basic international human rights and humanitarian law. The establishment of the Ad Hoc Tribunals for the Former Yugoslavia¹⁹ and Rwanda²⁰ was an important response to these issues, although it may fairly be said that these events and public opinion virtually compelled action of some sort from the UN Security Council. The mandate of these tribunals was limited and precluded crimes against peace. On the other hand, the relative success of these institutions has generated a renewed interest in the idea of an International Criminal Court as well as a Human Rights Court for Africa. Although the USA strongly supported the creation and work of the Ad Hoc Tribunals, it surprisingly opposed the passage of the Rome statute for creating the International Criminal Court.²¹ In particular, it opposed the codification of crimes against peace (aggression). Although opposition to the Rome statute is motivated by political factors as well as security concerns, it is also highly influenced by the resurgence of the idea of 'sovereignty',²² and the concern that international obligations are corrosive of this idea. In short, positivism, often nurtured by the impulse to chauvinism, still influences in important ways the legal perspectives of critical actors in the international system.²³

Whatever the full importance of these issues is, a few general considerations about globalism seem obvious from the perspective of the rule of law. The world of global events, facts and occurrences might require that the rule of law be more adequately defined in a more comprehensive (universal) context and that normative values in some important degree are inherent in the broader identification with the international rule of law. If the rule of law is seen as controversial in the context of war and security matters, other areas of globalism may directly impact on rule of law responsibilities, especially in the area of development which often implicates demographics, including population policy and reproductive freedoms. In short, impact of demographics on development and the capacity of states to deliver an adequate standard of living. Development dysfunctions can nurture criminal behaviors and be a fertile arena for penetration by organized crime syndicates.

3. Harsh Realities Generated by the Current Paradigm

The socio-political reality of globalism may be symbolized by numbers and statistics. For example, the tensions between the right to life and the right to a higher quality of life may be given a distinctive perspective when it is considered that every day 365,000 babies are born in the world. Ninety per cent of these babies are born in poor, underdeveloped countries. Notwithstanding the scope of global poverty, over 2 billion people worldwide have significantly improved their standard of living over the past ten years. India, a country long seen as an economic development basket case, has the world's largest middle class (200 million). However, there are still 750 million who live in dire poverty. China with a population of over 1 billion has one-fifth of the earth's population. And finally, in this regard it is estimated that in 1804 the world's population stood at 1 billion. In 1927, it was estimated to stand at 2 billion. By 2027, it is projected to increase to about 8-9 billion. The connections between population, development and criminal deviance may be one of the important challenges confronting the harsh reality of globalism.²⁴ In other words, what exactly will be the role of the rule of law in the new vision of global order? Some of globalism's harsh realities are listed here:

- law and global apartheid or global poverty (development, poverty, income distribution, economic equity, population policy etc);
- law and the global public health crisis (eg. AIDS); law, emerging markets, and the trend toward corruption and fragmentation; law and proliferation and threat of nuclear arsenals; law and the global war system (arms race, armed conflict, ethnic conflict etc); law and basic human rights (the epidemic of gross abuse of human rights and human atrocity); law and global constitutional crisis; law and the crisis of the rule of law (failed states, corrupt states, drug-controlled states, terrorist states, garrison states, authoritarian states, totalitarian states);²⁵
- law and the threat of organized transnational criminal behavior.

The idea of cooperative sovereignty is connected below to the nature of the international rule of law and its relationship to the international constitutional system and the promise of a lofty ideal.

4. The International Rule of Law Precept

In September 2000, President Jacques Chirac of the French Republic said the following:

‘The Charter of the United Nations has established itself as our “World Constitution”. And the Universal Declaration of Human Rights adopted by the General Assembly in Paris in 1948 is the most important of our laws.’²⁶

Like all laws, the UN Charter has been under constant pressure to affirm its promise and its universal lofty ideals. There has also been insistent pressure sought to limit the effect of the charter as a critical, indispensable framework for a defensible world order. It was a former US Secretary of State²⁷ who suggested that in the aftermath of the atomic age, the charter itself had become a near-obsolete instrument of world order. Indeed, assertions of power to intervene by the superpowers as they declared exclusive zones of security-based extra-territorial interests created real tensions between the letter and the spirit of the charter, and the exigencies of claims to expanded spheres of national security influence.

Even if one believes that the end of the Cold War represents a demise of ‘history’, its legacy for the international rule of law will linger long after its causes are forgotten. Events confronting international legal order after the Cold War brought back a sobering reality. There is indeed a harsh sociopolitical reality in global society. Moreover, this reality represents a real threat to the UN Charter system if it is not effectively confronted. Transnational organized crime as well as the epidemic of humanitarian crimes are only a part of the global problem, as the list of harsh reality issues illustrates.

The harsh reality of globalism also confronts us with the public policy challenge of how to change the harshness, which includes the widespread suffering humanity experiences under current world order conditions. This challenge requires a more articulate normative road map – a more explicit form of policy guidance. Such guidance may be rooted in many sources of comparative, cross-cultural and moral experience, as well as in the UN Charter’s promise of a deepening awareness of the importance of human dignity as a universal moral, ethical and juridical imperative.

Normative guidance found in the scholarly discourse of morality, ethics and value analysis might also provide incentives to policy makers to enhance the prospects of transformation, at least in the direction of a global public and civic order founded on the universal ethic of respect for the dignity and worth of all of humanity, as well as the earth-space environment which makes human survival and transformation possible. The prospect of an improved human future is therefore an important expectation of the normative guidance based on an ethic of universal human dignity.

The central problem some modern philosophers and moralists have grappled with is that human dignity based on universal respect is in fact a cluster of complex values and value processes. In order to enhance human dignity in policy contexts, integration of many of these values is required. Specific prescription and application of values to enhance human dignity is indeed a complex matter.²⁸ At an abstract philosophical level, these values may indeed

seem to be incommensurable.²⁹ At an operational policy level, ostensibly conflicting values may have to be contextualized and more deeply analyzed in light of broader, more abstract formulations of value judgment. Thus, values such as power, respect, rectitude, affection, enlightenment, wellbeing, skill and wealth must be construed and interpreted in terms of their enhancement of a more abstract human dignity/human rights postulate. The policy maker seeking enhancement of the ethic of universal dignity must develop complex techniques of decision making, including sophisticated standards of construction and interpretation.³⁰ Does evaluating the value of liberty induce the sacrifice of the value of equality? It is at this 'operational' level that practical lawyers, social scientists and real-world policy makers must make critical decisions about how to integrate often ostensibly conflicting values and norms genuinely to enhance the universal ethic of human dignity.

For example, in South Africa the Constitutional Court was confronted with a claim by a political party actively involved in the struggle against apartheid that the 'Truth and Reconciliation' statute which provided amnesty for those who should otherwise be prosecuted for grave violations of human rights was both unconstitutional and a violation of international law.³¹ In effect, the court was confronted with a truth and reconciliation procedure which was a critical component of the internal peace process as well as the process whereby the disenfranchised mass of South Africans could gain their political freedom. This procedure was, however, in ostensible conflict with universally accepted norms of international law which do not provide derogable excuses for heinous crimes against humanity.

Does the ethic of universal respect and human dignity demand absolute, universal compliance at the expense of other universally accepted values? To ensure that the values of respect, democratic entitlement and humanitarian law standards are honored requires fine-tuned analysis and great subtlety in the structure and process of decisional interventions. Rules of construction and 'interpretation' are painfully worked out, which hold, for example, that even if a peremptory principle (*jus cogens*) of international law embodies an obligation *erga omnes*, it should be evaluated, appraised and construed so as to enhance rather than disparage similar rights which may also have to be accommodated. The currency behind the universal ethic of essential dignity and respect is that it provides practical decision makers with goals, objectives and working standards that permit the transformation of law and practice into a greater and more explicit approximation of the basic goals and standards built into the UN Charter system itself, which prescribes a public order committed to universal peace and dignity for the people of the entire earth-space community.

Practical decision makers and interpreters might gain more normative guidance about the universal ethic of human dignity, since this is expressed in six keynote concepts embodied in the UN Charter. These concepts embody the global community's fundamental expectations about global constitutive and public order priorities.³² Indeed, these concepts are vital if the interpretation of international law is to be guided by explicit standards of normative understanding built into the ethic of universal respect for human dignity. In short, the construction and interpretation of modern international law (i.e. its specific prescription and application) may be rootless, arbitrary, and even quixotic if it is not subject to explicit standards of

normative guidance, which are expressed, *inter alia*, in the concrete terms of the UN Charter itself.

5. Keynote UN Charter Precepts and Values Relevant to a New Paradigm

The opening of the preamble expresses the first precept that the charter's authority is rooted in the perspectives of all members of the global community, i.e. the peoples. This is indicated by the words, '[w]e, the peoples of the United Nations.'³³ Thus, the authority for the international rule of law, and its power to review and supervise important global matters, is an authority not rooted in abstractions like 'sovereignty', 'elite', or 'ruling class' but in the actual perspectives of the people of the world community. This means that the people's goals, expressed through appropriate fora (including the United Nations, governments and public opinion), are critical indicators of the principle of international authority and the dictates of public conscience as they relate to the conditions of harsh global realities, as well as aspirations encompassing lofty ideals. The charter's second key precept embraces the high purpose of saving succeeding generations from the scourge of war.³⁴ When this precept is seen in the light of organized crime syndicates' involvement in the illicit shipment of arms, the possibility that they might have access to nuclear weapons technologies, and chemical and biological weapons, the reference to 'war' in this precept must be construed to enhance the principle of international security for all in the broadest sense. The third keynote precept is the reference to the 'dignity and worth of the human person'.³⁵

"There is no law without the idea of community and there is no community without the idea of law."

The eradication of millions of human beings with a single nuclear weapon or policies or practices of ethnic cleansing, genocide and mass murder hardly value the dignity or worth of the human person. What is of cardinal legal, political and moral importance is the idea that international law based on the law of the charter be interpreted to enhance the dignity and worth of all peoples and individuals, rather than be complicit in the destruction of the core values of human dignity. The negative utopian ideals of transnational organized crime make this principle a crucial component of normative guidance. The fourth keynote precept in the preamble is emphatically anti-imperialist. It holds that the equal rights of all nations must be respected. Principles such as non-intervention, respect for sovereignty, including political independence and territorial integrity are also issues that remain under constant threat of penetration by organized criminal activity. The fifth keynote precept in the charter preamble refers to the obligation to respect international law (this effectually means the rule of law) based not only on treaty commitments but also on 'other sources of international law'.³⁶ These other sources of law include values which complement efforts to promote ethical precepts built into expectations of the universal ideals of morality. The sixth keynote precept in the preamble of the charter contains a deeply rooted expectation of progress, improved standards of living, and enhanced domains of freedom and equality. Organized crime represents the antithesis of this prospect.

6. UN Charter Values, the Rule of Law and a New Paradigm for Global Governance

The idea of the rule of law built in these keynote precepts is as controversial, or indeed obvious and noncontroversial, as the idea of law. What then is the idea of law from a historic, cross-cultural, international perspective that inspires these keynote concepts? It is simply this: human beings belong to communities. Communities cannot exist without some culturally approved and supported rules of conduct. There is no law without the idea of community and there is no community without the idea of law. Law is a condition and a consequence of community and community is a condition and a consequence of law. Justice Oliver Wendell Holmes once indicated that the notion of a legal right was so basic to the idea of law and community that without it, a 'dog will fight for his bone'. One might add to Holmes's insight that in this 'fight', the big dog would 'win' and acquire all of the bones, the marrow and the meat. The smaller dogs would get nothing. A way to understand this almost 'symbiotic' relationship between law and community is to ask the audience to imagine a society without an expectation that

- a) agreements and exchanges made in good faith and according to law will be honored;
- b) wrongs (delicts) inflicted upon innocent parties will be compensated;
- c) basic interests and expectations of entitlement as in fundamental property interests will be honored;
- d) conduct which violates the basic fundamental norms of right and wrong shall be sanctioned by a collective community response;
- e) basic structures of governance and administration respect the rules of natural justice such as *nemo iudex in sua causa* or *audi alteram partem*, and in general constrain the abuse of power and thus the prospect of caprice and arbitrariness in governance.

The idea of law, based on a comparative, cross cultural, historic reality, is that human beings interact within and without community lines. In so doing, they exchange, they commit wrongs intentionally or unintentionally, they require some security over their possessions and entitlements, and their systems of governance aspire invariably to constrain the impulse for abusing power. In this anthropomorphic sense, law protects or secures the most elementary conditions of social coexistence. Let us describe this as the function of minimum order and assume that it is an aspect of 'law', and of 'justice'.

It is also in the nature of human beings that they are transformative in their capacity for growth and in their relations with others. Human beings exist not only spatially but also in terms of the duration of time and events. There is hopefully a tomorrow, a next week, next month, next year, or next century. Human beings are transformative agents who make things happen, and in doing so, underline the question also embedded in the nature of law and community, i.e. that we can change things for better or worse, for the common good or the special interests, for the sense of expanding human dignity or the prospect of a negative utopia, the rule of human indignity. It is in this sense that law as minimum order confronts

the idea of justice and potentiality. It is commonly thought that minimum order is a critical, but not absolute, condition of a more just, more decent, more optimistic human prospect. The rule of law precept is uncontroversial in the sense of minimum order and its 'boundaries'. Peace, security, and minimal standards of human rights are reflections of these values in international, constitutional and municipal law.

The rule of law idea in the above sense protects both the individual and the community (the village). By seeking to secure the conditions of basic security for human coexistence, by seeking to ensure that coexistence will not be subjected to arbitrary and capricious exercises of power, the rule of law provides a constitutive architecture which permits human beings to transform themselves in terms of loftier ideals; in terms of something akin to the Palermo renaissance. The great British political scientist, Leonard Shapiro, was once asked what the real difference was between a totalitarian state and one committed to the culture of democracy. He unhesitatingly responded that it was the rule of law, in the sense that it was the basic mechanism for constraining the prospect of arbitrariness in governance. In short, the rule of law is the protective shield against the abuse of power by arbitrary means, by both private and public actors.

What, then, is the relationship of the rule of law to the notion of cooperative sovereignty which is suggested here to be a cornerstone of the convention? One of the most important values embedded in the UN Charter is the obligation of national sovereign states to cooperate in the achievement of its purposes and objectives. This charter precept is codified in the Declaration on Principles of International Law Concerning Friendly Relations and Cooperation among States in Accordance with the Charter of the United Nations.³⁷ The principle of cooperative sovereignty recognizes the limits of traditional sovereignty and sees the prospect of strengthening the sovereignty of the state, through cooperation, to realize common objectives and common interests. If such cooperation can be achieved in the sensitive area of jurisdiction over criminal activity, then an enlargement of the boundaries of cooperation may bring an even greater awareness of how common problems and mutually experienced crises can be more effectively confronted and resolved. The UN Charter's constitutional promise as the Rule of Law Cornerstone of cooperation is thus the key to making the rule of law a critical component of an improved world order.

7. Conclusion

The rule of law is an idea rooted in the principle of practical realism. Yes, human social process can have systemic dysfunctions creating harsh realities. The rule of law is critical in the process of ameliorating and then changing those harsh realities. If it is successful it will maximize the prospect that loftier ideals of human organization and reciprocal respect can occur. Those values are no mystery. They include Roosevelt's four freedoms: the freedom from fear and from want, the freedom of expression, and the freedom of conscience and belief. They are today reflected in President Jacques Chirac's 'universal and emblematic values', namely, 'liberty, equity and solidarity, tolerance, non-violence, respect for nature and shared responsibility.'³⁸ They are reflected as well in the International Bill of Rights and its commitment to universal human dignity. As the Palermo experience aptly demonstrates,

the rule of law issue is not someone else's problem: it is everybody's. It is a moral and juridical problem. It requires the collective effort and solidarity of all – individuals, institutions of civil society (professional, academic, voluntary) and institutions of law as well as governance at all levels to move the being and becoming of our global village from the harsh reality of deprivation to the abundant reality of mutual respect and universal dignity. The Palermo renaissance invites us to renew our commitment to the rule of law as a crucial pillar for the lofty ideals that give us a reason for being.

In conclusion, it is important to stress the place of the Organized Crime Convention in a renewal of the promise of the international system based on the UN Charter. The cooperation inherent in the sovereign obligations of this treaty will enhance the realization of the ideals of a universal international ethic as the basis of a truly universal rule of law. The principle of cooperative sovereignty is an ethical and juridical milestone. Both ordinary individuals and state representatives must work toward the adoption and the effective application of this convention (and its protocols) with all deliberate speed. To delay ratification and adoption in effect supports the criminals. To obstruct ratification and adoption is, effectively, to demonstrate solidarity with a common enemy of mankind. To expeditiously adopt the convention and give it full efficacy is to cement the ties between state and people. It will give genuine meaning to the ringing words of the UN Charter 'We the peoples...' upon which the authority of law and ultimately international ethical comments are based. Finally, the Organized Crime Convention underlines a critical problem in the current paradigm and takes a small step in the direction of a new paradigm of cooperation and solidarity for the earth/space community.

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Notes

1. Among the most important global organized crime cartels is the Mafia. The role of the 'mafia' in Sicilian political culture and criminal deviance is well described in James Fentress (2000) 'Rebels and The Mafiosi: Death in a Sicilian Landscape'. The book is also favorably reviewed by Peter Robb, 'Family Business', in the *New York Times Book Review*, 7th January, 2001, at 23. The term 'mafia' appeared in the national vocabulary (of Italy) in 1885. According to Robb, 'Mainland Italy's alarmed discovery of how deeply rooted organized crime was in Sicily was part of a wider shock experienced by bourgeois northern Italians when they began to discover the hidden culture of southern Italy and the dramatic lives of their new fellow citizens.' *Ibid.* at 23. About the historic character of the mafia: it is according to Fentress and Robb an '... old form of criminal exploitation of the Sicilian people by a small number of their fellows.' An important contemporary insight into the Palermo renaissance lies in the political fact that '[a] strong indigenous civil culture today is implacably opposed to the ways of the Mafia'. The re-establishment of the mafia in Sicily as a potent 'political' and criminal syndicate is partly due to the conduct of the United States Army in 1943: 'Mussolini's fascist regime had effectually brought the Mafia under state control and many of its leaders were imprisoned.' As Robb indicates, 'Mafia opportunism had worked brilliantly in 1943 by serving the American invaders and regaining for the Mafia overnight all the territorial control it lost under fascism. Only in Sicily did Cosa Nostra perfect that parasitic vesting of criminal interests in the body politic that has been a model for the rest of the world's organized crime.' *Ibid.* Finally, criminal networks like Cosa Nostra do 'control a significant part of the global economy. ...', they 'impinge in terrible ways on many millions of lives, and they all follow Cosa Nostra's example of growth through political alliances'. On the Palermo renaissance, see 'New Ways To Fight Back', from CIVITAS, Palermo World Congress: Civic Education Works (1999), <http://www.civnet.org/civitas/palermo/cived.htm>. See also Umberto Santino, 'Law Enforcement in Italy and Europe Against the Mafia and Organized Crime', CSD. <http://www.centroimpastato.it/publ/online/mcdonald.htm>
2. United Nations Convention against Transnational Organized Crime, 55th Sess., Agenda Item 105, UN Doc. A/55/383 (2000) (hereinafter the convention).

3. Winston Nagan, 'Strengthening Humanitarian Law: Sovereignty, Criminal Law and the Ad Hoc Tribunal for the Former Yugoslavia', *Duke Journal of International Comparative Law*, Vol. 6, No. 1, (1995): 135-146.
4. Winston Nagan, 'Lawyer Roles, Identity and Professional Responsibility in an Age of Globalism', *Florida Journal of International Law*, No. 12 (2000).
5. *Ibid.*
6. The term 'kleptocratic' is a neologism.
7. L. de Koker, (2000) 'Money Laundering Control in South Africa – A South African Response to an American Comment', unpublished manuscript, on file with the author.
8. B. Ryder, (n.d.) 'The Enterprise of Crime: Organized Crime in the United Kingdom', unpublished manuscript, on file with the author. For example, see the European Convention on Extradition (13th December, 1957) Europ. TS 24, 359 UNTS 274. The convention provides for confiscation of assets, including forfeiture which is defined as 'the permanent deprivation of property by order of a court or other competent authority'. The Convention, ref. 2 above, Art. 2(g) at 25.
9. *Ibid.*
10. *Ibid.*
11. The Convention, *ibid.*, Art. 24, at 43.
12. *Ibid.*, Art. 18, at 37.
13. *Ibid.*, Art. 12, at 31.
14. *Ibid.*, Art. 24, at 43.
15. *Ibid.*, Art. 7, at 28.
16. UN Charter, Arts 55, 56.
17. UN Charter, Art. 2, para. 4.
18. For a skeptical appraisal of new world order interventions, see Chomsky, N. (1999) 'The New Military Humanism: Lessons from Kosovo', Common Courage Press, Monroe, Maine.
19. United Nations Security Council Resolution 827 on Establishing an International Tribunal for the Prosecution of Persons Responsible for Serious Violations of Humanitarian Law Committed in the Territory of the Former Yugoslavia since 1991. SC Res. 827, UN SCOR, 48th Sess., 3217th mtg, at 29, UN Doc. S/Res/827, 32 ILM 1203 (1992).
20. United Nations Security Council Resolution 955 on Establishing the International Tribunal for Rwanda (with annexed statute). SC Res. 955, UN SCOR, 49th Sess., 3453rd mtg, at 15, UN Doc. S/Res/955 (1994); reprinted in *Weston* I.I.E.12.
21. *Is a UN International Criminal Court in the US National Interest: Hearings Before the Subcomm. on International Operations of the Senate Comm. on Foreign Relations*, 105th Cong. (1998).
22. See generally Nagan, ref. 4 above.
23. *Ibid.*
24. For a skeptical appraisal of the economic foundations of neoliberal 'globalism' see N. Chomsky (1999) *Profit and People: Neo Liberalism and Global Order* Seven Stories Press, New York/London. See also *PIOOM Newsletter and Progress Report*, (1999-2000) Vol. 9, No. 1, Leiden, The Netherlands, 3.
25. The literature on these crises themes in international law is extensive. For a general orientation see Falk, R. A. (1989) 'Revitalizing International Law', Iowa State University Press; Mohammed Bedjaoui, M. (1979) 'Towards A New International Economic Order', UNESCO, Paris; Kohler, G. (1978) 'The Three Meanings of Global Apartheid: Empirical, Normative, Existential', *Alternatives – A journal of World Policy*, Vol. 4; Falk, R. and Meyrowitz, E. (1980) 'Nuclear Weapons and International Law', *Julian Journal of International Law*, 29, 541; Nagan, W. (1999) 'Nuclear Arsenals, International Lawyers, and the Challenge of the Millennium', *Yale Journal of International Law*, Vol. 24, No. 2; Weeramantry, C. (1987) 'Nuclear Weapons and Scientific Responsibility', Kluwer, Cambridge, MA; Charlesworth, Chinkin and Wright (1991) 'Feminist Approaches to International Law', 85 AJIL 613; Purvis, N. (1991) 'Critical Legal Studies in International Law', 32 HILJ 81; Falk, R. A. (1997) 'The World Order Between Interstate Law and The Law of Humanity: The Role of Civil Society Institutions', reprinted in *Weston*, Falk and Charlesworth, 'International Law and World Order', p. 49.
26. J. Chirac, (2000) 'Universal Values', The United Nations Millennium Summit, 6th-8th September, 2000, p. 6.
27. The tension between the technological advances of nuclear weapons and the UN Charter is indicated in Dulles's idea that the UN Charter was 'a pre-atomic age' constitution; it was, he held, 'obsolete before it actually came into force. As one who was at San Francisco, I can say with confidence that if the delegates there had known that the mysterious and immeasurable power of the atom would be available as a means of mass destruction, the provisions of the Charter dealing with disarmament and the regulation of armaments would have been far more emphatic and realistic.' Foster Dulles, J. (1953) 'The Challenge of Our Time: Peace with Justice', ABAJ 1063, 1066.
28. Values considered widely to implicate the human dignity precept are deemed to be implicit in the Universal Declaration.

- These values include power, wealth, respect, rectitude, enlightenment, wellbeing, health, skill, affection, rectitude and possibly aesthetics. See McDougal, Lasswell and Chen (1980) 'Human Rights and World Public Order', Yale University Press, Connecticut; Nagan, W. (1993) 'Africa's Value Debate', *East African Journal of Peace and Human Right, Vol. 1*; (1991) 'African Human Rights Process: A Contextual Policy-Oriented Approach', *Southwestern University Law Review*; (2000) 'African Jurisprudence', *Encyclopedia of the Philosophy of Law*.
29. J. Gray, (1996) 'Isaiah Berlin', Princeton University Press, New Jersey, especially chs 2, 3, 4 (Pluralism, History, Nationalism).
 30. See generally, Vienna Convention on the Law of Treaties, 1155 UNTS 331; 1969 UNJYB 140; 1980 UKTS 58, Cmnd 7964; reprinted in 8 ILM and 1 *Weston IE, 1*.
 31. See *Azanian People's Organization v President of the Republic of South Africa, CCT 17/96*; see also Nagan and Adkins (2001) 'Conflict Resolution and Democratic Transformation: Confronting the Shameful Past – Prescribing a Humane Future', SALJ, forthcoming.
 32. See 'Legality of Nuclear Weapons' (1996) LCJ at 443 (Weeramantry J, dissenting).
 33. UN Charter, Preamble.
 34. *Ibid.*
 35. *Ibid.*
 36. *Ibid.*
 37. See GA Res 2625, UN GAOR, 25th Sess., Supp. No. 28 at 21, UN Doc A 8028 (1971).
 38. See Chirac, ref. 26 above, at 6.

