



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 & 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 to Harmonia represents the symbolic coupling of Eastern learning and Western love of beauty. The youngest son of Cadmus and Harmonia was Illyrius. The city of Zagreb, which is the formal seat of SEED, was once part of Illyria, a region in what is today referred to as the Western Balkans. Cadmus will be a journal for fresh thinking and new perspectives that integrates knowledge from all fields of science, arts 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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October 2017

THE RISK INSTITUTE
GENEVA - NAPA - PONDICHERRY - TRIESTE - ZAGREB

CADMUS VISION

The world is in need of guiding ideas, a vision, to more effectively direct our intellectual, moral and scientific capabilities for world peace, global security, human dignity and social justice. Today we face myriad challenges. Unprecedented material and technological achievements co-exist with unconscionable and in some cases increasing poverty, inequality and injustice. Advances in science have unleashed remarkable powers, yet these very powers as presently wielded threaten to undermine the very future of our planet. Rapidly rising expectations have increased frustrations and tensions that threaten the fabric of global society. Prosperity itself has become a source of instability and destruction when wantonly pursued without organizational safeguards for our collective well-being. No longer able to afford the luxury of competition and strife based primarily on national, ethnic or religious interests and prejudices, we need urgently to acquire the knowledge and fashion the institutions required for free, fair and effective global governance.

In recent centuries the world has been propelled by the battle cry of revolutionary ideas—freedom, equality, fraternity, universal education, workers of the world unite. Past revolutions have always brought vast upheaval and destruction in their wake, tumultuous and violent change that has torn societies asunder and precipitated devastating wars. Today the world needs evolutionary ideas that can spur our collective progress without the wake of destructive violence that threatens to undermine the huge but fragile political, social, financial and ecological infrastructures on which we depend and strive to build a better world.

Until recently, history has recorded the acts of creative individual thinkers and dynamic leaders who altered the path of human progress and left a lasting mark on society. Over the past half century, the role of pioneering individuals is increasingly being replaced by that of new and progressive organizations, including the international organizations of the UN system and NGOs such as the Club of Rome, Pugwash and the International Physicians for the Prevention of Nuclear War. These organizations stand out because they are inspired by high values and committed to the achievement of practical, but far-reaching goals. This was, no doubt, the intention of the founders of the World Academy of Art & Science when they established this institution in 1960 as a transnational association to explore the major concerns of humanity in a non-governmental context.

The founders of WAAS were motivated by a deep emotional commitment and sense of responsibility to work for the betterment of all humankind. Their overriding conviction was on the need for a united global effort to control the forces of science and technology and govern the peaceful evolution of human society. Inhibiting conditions limited their ability to translate these powerful motives into action, but they still retain their original power for realization. Today circumstances are more conducive, the international environment is more developed. No single organization can by itself harness the motive force needed to change the world, but a group of like-minded organizations founded with such powerful intentions can become a magnet and focal point to project creative ideas that possess the inherent dynamism for self-fulfillment.

Ivo Šlaus

Orio Giarini

Garry Jacobs

CADMUS
New Perspectives on Major Global Issues
Volume 3, Issue 3, October 2017

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Inside this Issue

This issue of *Cadmus* explores the nexus between three critically important institutions of contemporary society—democracy, economy and education—in an age of increasing speed, interconnectedness, complexity and uncertainty. The democratic social compact is under threat. Rising levels of unemployment, inequality and economic insecurity are undermining confidence in the wisdom and fairness of the market economy. In politics, increasing polarization, populism and retreat from globalization pose serious challenges to prevailing theory and public policy. The neoliberal economic philosophy long heralded as a bulwark for freedom is increasingly perceived as a threat to individual security and social stability. The democratization of social power associated with the spread of education and electronic communications is being undermined by an increasing concentration of economic power, under-regulated international markets, globally dominant corporations, and money in politics.

Recent developments are symptoms of our intellectual and practical struggle to navigate the challenges and opportunities posed by rapid social evolution. The rise of Cold War rhetoric is the result of flawed theories and failed policies, which signal the need for new ideas, fresh perspectives and new modes of thinking to replace the simplistic reductionism and polarization of choices that characterize the prevailing orthodoxies of a bygone era. The articles in this issue represent a more synthetic mode of thinking that seeks for truths to complete and complement other truths rather than compete, deny and replace other valid viewpoints.

There is an urgent need for new thinking and new knowledge which cannot be discovered by detailed analysis of more data or arrived at by partial fragmented theories. The discipline-based study of global processes needs to be complemented by a serious endeavor to decipher the deeper forces and characteristics of humanity's continued evolution from isolated separate units to an increasingly interconnected and integrated global society. It needs to encompass within a single panorama the physical, economic, political, social, cultural and psychological dimensions of the movement. It needs to transcend the limitations of cultural bias to perceive the riches of cultural diversity being shaped by the meeting and melding of diverse perspectives. It needs to replace the long, slow, clumsy trial and error movement with actions founded on a clearer, more consistent, coherent and conscious understanding of social evolution.

Education is humanity's most sophisticated institution for conscious social evolution. Yet, education itself is under siege and struggles to adapt to rapidly changing societal needs. Advances in science and technology are rendering existing knowledge and skills obsolete. More education is no longer assurance of higher achievement and future security. Employers are looking for people who can cooperate, adapt, innovate and create, rather than follow instructions and repeat what they were taught. Today's knowledge is not sufficient to guide and support youth during the rapid social transition now underway. Radical change is needed in educational objectives, content, pedagogy and delivery systems.

The issues addressed in this issue reflect the content of discussions in recent and upcoming activities of the World Academy of Art & Science and the World University Consortium.

The Editors

WAAS-UN: A Special Consultative Status and its Inspirational Value

Donato Kiniger-Passigli

Head, Fragile States and Disaster Response Group, International Labour Office (ILO);
Fellow, World Academy of Art & Science

As of July 2017, the World Academy of Art & Science, founded in 1960 by eminent thinkers and scientists, has something in common with more acclaimed and celebrated organizations such as CARE International, Greenpeace or Médecins Sans Frontières (Doctors without Borders).

The commonality is the newly acquired special “consultative status” of WAAS vis-à-vis the United Nations. More precisely, we have gained a status that will allow us (Fellows of this unique interdisciplinary academy) to be heard in conjunction with the most prominent and universal international organization through its visionary Economic and Social Council (ECOSOC), established in 1945 by the United Nations Charter as the principal organ, under the authority of the General Assembly, to promote:

- a. Higher standards of living, full employment, and conditions of economic and social progress and development;
- b. Solutions for international economic, social, and health related problems; and international cultural and educational cooperation; and
- c. Universal respect for, and observance of, human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion.

The Academy was granted the prestigious UN consultative status after a laborious and lengthy application process, a prerequisite to enter into this special relation after UN member states’ appropriate review of its statutes, objectives, present and past affiliations, and of course, achievements. This thorough examination allowed us to graduate among other fellow institutions whose opinion, ideas and initiatives deserve universal attention. We could well say that it was about time for this “special licence” to be issued to an Academy that has about twenty Nobel laureates among its ranks!

If we read in between the lines, the UN-ECOSOC’s mission is the equivalent to a universal program that cuts across human knowledge, aspirations and challenges. It is almost an existential quest with multiple perspectives and one single objective: the universal attainment of peace and prosperity.

The same could be said of the Academy that has a long history and success stories to share in all fields of human activities and contributes to the progress of mankind through the creative thinking of its members.

At this juncture, a question could be raised: Does the United Nations that predates WAAS by 15 years mirror the objectives of our Academy or is it the Academy (that was in gestation for almost two decades) that has the ambition to cover and propose global solutions in the sphere that absorbs the largest multilateral organization? Certainly, this question will not shake the foundations of the UN glass-curtain headquarters solidly standing on the shores of the East River in New York, with offices in virtually all countries of the world. This clearly indicates that both institutions have a fundamental inspirational role to play. As Ivo Šlaus, Honorary President of WAAS, said at a memorable event in Dubrovnik, “Our duty is not to produce science or art, but to inspire and advise”. In doing so, we remain true to our motto: “Leadership in thought that leads to action”.

Even in times of crises, ethical and financial, nobody could challenge the United Nations’ authority as the main convenor of the international debate for all political, economic, environmental, demographic and social challenges that confront the globalized ecosystem. Over the years, the United Nations lifted its own internal curtains in order to open up to contributions from the academic world and, in the last two decades, more decisively from private foundations and the private sector tout-court. It was an engagement that openly sought not only to expand the scope and breadth of its activities but also to leverage resources and perhaps gradually transform an organization made of nations into an organization that more overtly represents the interests of the people of those nations.

This change has been gradual and slow but it is happening in front of our eyes. To appreciate the magnitude and scale of the ongoing transformation, it is enough to reflect on the new emphasis that the UN is placing on issues of crisis prevention, peacebuilding, the determination to overcome the humanitarian/development divide and to break the internal silos, while changing work modalities. This is a radical shift from the reactive mode of post-crisis interventions, the stereotype of never-ending traditional peace-keeping operations, multiple assessment missions, and often disjoint development programs. Efforts to integrate perspectives by specialized agencies will hopefully fit into collective initiative and results. An example of this is the growing consensus on the key role of employment promotion in the range of measures that should be taken in anticipation and as response to crises.

It is therefore not by chance that only now, with several decades of delay, has the World Academy entered into this privileged position allowing us to nurture and expand a promising relationship that will give us the opportunity to improve the level of the debate, influence contemporary processes and deepen the general understanding of new projects catered to the well-being of humanity. What we need is an insider view, a sort of “embedded approach” (into UN affairs) to provide in-depth knowledge and accessible answers.

We therefore look at this new beginning with renewed enthusiasm and curiosity, and with the sparkle of the newcomer or an apprentice entering the UN’s long corridors for the first time, conscious that experience and knowledge are what we can offer best to the world-at-large.

The Academy will not stop pursuing its own program, and will continue calling for a human-centered paradigm shift that is required to confront man-made complexities, hazards and the fragile landscape affecting almost two billion people globally. Its Fellows will eventually walk through the various UN assemblies, human rights councils and sustainable development conferences with the certitude that those revolving doors will open up upon issuance of a badge and the Academy's nameplate will be used not just to obtain a seat at the table but to offer thoughts, advice and support.

Albert Einstein, one of our organization's founding fathers, once said: "I have no special talents. I am only passionately curious." True to his legacy, WAAS Fellows will keep wandering in and exploring the realms of UN's and other important affairs with unabated passion and commitment.

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Challenges are Opportunities for Korea and the World*

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This is a time of unprecedented speed, interconnectedness, complexity and uncertainty which pose serious challenges to global peace, security, and sustainable social progress. Prevailing political, economic and social theory, institutions and policies are outdated and unable to cope with the need for change. But this is also a time of unprecedented opportunity for rapid social evolution at the national and global level, akin to the opportunities that led to the sudden fall of the Berlin Wall, democratization of Eastern Europe, reunification of Germany and founding of the European Union. Changes of this magnitude only occur when the aspirations and energies of the population are awakened, released and channeled into constructive action by idealistic leadership as they were during democratic movements which ended colonialism after WWII and spread through Central and Eastern Europe in 1989. South Korea's peaceful Candlelight Movement which began last year is of that character.

Today Korea represents a nexus of the world's challenges and opportunities. Decades of phenomenal political, economic and social progress in the South have prepared it to assume a greater role in international affairs. At the same time, the legacy of unresolved issues on the Korean Peninsula threatens its remarkable achievements and casts a shadow over its future. Korea must at once preserve its hard earned gains while overcoming a seemingly intractable nuclear dilemma that even the superpowers have been powerless to resolve. This cannot be achieved by the conventional policies of either confrontation or appeasement. It requires a different strategy at a different level.

History provides insights into an ultimate solution to the Korean problem. After asserting its freedom from Britain in 1776, it took America nearly a century to translate into practice the ideals enshrined in the Declaration of Independence. The American Civil War abolished slavery. It also united a loose confederation of states into a strong federal system. In the decades following the end of that war, the energies of the American people were released as never before and the nation quickly rose from obscurity to become the leading economy in the world and a promised land for people of all nations aspiring for freedom and prosperity. The translation of idealistic democratic principles into practical realities was the lever for unleashing the prodigious energies and creativity of the American people for national development and eventual world leadership.

The unity America achieved through a bloody civil war, Germany accomplished more recently by peaceful means. Divided into East and West for nearly five decades, West

* Presented by the author at the International Peace BAR Festival at Kyung Hee University, Seoul co-organized by WAAS on September 21, 2017.

Germany was sandwiched between two nuclear armed superpowers and helpless to act to restore its own unity. Rather than embracing aggressive hostility toward its brethren in the East, West Germany adopted two very significant strategies. Domestically, it sought to transform an authoritarian state into one of the most vibrant and inclusive democracies in the world, reconciling the tensions between capitalists and workers and fostering tolerance and cultural harmony among an increasingly heterogeneous population. At the same time, internationally, it became a leading proponent of European unification and subordinated nationalistic ambitions to foster unprecedented levels of cooperation and integration with its neighbors. West Germany began its gradual rise as an exemplary world citizen and leader.

“The gains of democratization achieved by the Candlelight Movement in South Korea should now be translated more broadly and deeply into greater individual freedom, equality of opportunity, transparency and public participation.”

These examples offer insights relevant to Korea today. At the national level the gains of democratization achieved by the Candlelight Movement in South Korea should now be translated more broadly and deeply into greater individual freedom, equality of opportunity, transparency and public participation. This will require profound changes in the institutions and culture that still foster obedience to authority and various forms of social discrimination. It can only be achieved by a broad-based movement of civil society inspired by the patriotic spirit of the Candlelight Movement and transformed into concrete policies and a program of action at the national level.

Participative democracy can provide the political basis for the movement, but it needs to be supported by a sea change in social institutions to embody new values, attitudes and perspectives. Today Korea is a global leader in educational attainments. Its students rank among the world’s highest on international standardized tests. Yet, rote memorization, conventional conformity and submission to authority prevail in the Korean educational system in this transitional age in which independent thinking, innovation, creativity and fresh initiative are urgently needed. A new paradigm in education is essential to shift the focus from mass production of standardized citizens to fully develop the minds and personalities of youth to think and act independently and creatively to refashion society according to a new vision and values.

At the global level, Korea has a unique opportunity to leverage its achievements and public visibility to provide a voice, model and leadership for the collective advancement of humanity as a whole. The nuclear threat which it faces today is the consequence of the failed policies of the five original nuclear powers, which have refused to meet their commitments under the Nuclear Non-Proliferation Treaty and missed the opportunity to eradicate this great menace to humanity at the end of the Cold War. Their entrenched position must be radically altered to prevent a further escalation and proliferation of similar threats. Korea has an

opportunity to become a strong courageous voice of humanity calling for the total abolition of nuclear weapons, which is the only viable solution to the problem it faces and the danger of further nuclear proliferation in other regions.

“A concerted effort to release and mobilize the energies of civil society at the national and global level based on humanity’s aspiration for peace, security, freedom, prosperity, harmony and social equality is the common strategy that can propel rapid advancement for both Korea and the world community.”

At the same time Korea is well positioned to seize the initiative to become a leader of the global movement to achieve the UN Sustainable Development Goals. Already a model of rapid development at the national level, Korea can become a voice and leader in the quest for universal human development at the global level.

The word ‘peace’ in English and Western thought is practically conceived in negative terms as the absence of war and conflict. But in more ancient Asian societies peace is conceived in positive terms as *shanti*—as a spiritual status that fulfills all the conditions that promote sustainable and harmonious human security, freedom, unity, welfare, and well-being.

A concerted effort to release and mobilize the energies of civil society at the national and global level based on humanity’s aspiration for peace, security, freedom, prosperity, harmony and social equality is the common strategy that can propel rapid advancement for both Korea and the world community.

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The Ethics of Time in the Face of Global Challenges: The Time has come for Action

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Abstract

Taking into account potentially irreversible processes, it is our common responsibility to bear in mind “the ethics of time”. We should act in a way that will prevent us from taking a path that allows no return. We have to specifically take into account next generations: our legacy cannot condemn them to have the worst standard of living and prevent them from fully exercising their distinctive capacities. The past has already been written. It must now be accurately described. We must learn from the lessons of the past to be able to invent the future. To be able to provide all required rights to each and every human being so we can all have a dignified life. The time has come to raise our voices with both serenity and resolution. The time has come for the emancipation of citizenship, for “We, the peoples...”, as stated in the UN Charter. We need peace within each human being, peace at home, peace in the villages, in the cities... worldwide peace. Therefore, the time has come for a great mobilization at the global scale so that peoples at last take control of their own common destiny. Words are our only “mass construction weapons”. Enough! The time has now come to “rescue” the citizens and, to that end, we must make a quick and courageous shift from an economy of war to an economy of global and sustainable development. The time has come for action!

“Tomorrow might be too late”.

1. Introduction

Human beings are the sole species who are able to anticipate, to use knowledge to foresee, to use foresight to prevent. Today, at the dawn of the 21st century and the beginning of the third millennium, this prospective capacity has become more relevant than ever because, for the first time in history, mankind must face global challenges that could lead to points of no-return if they are not dealt with in due time. All inhabitants of the Earth must be held responsible for this potential irreversibility. Scientists, academicians, artists and intellectuals should, in particular, place themselves at the forefront of an overall mobilization against big powers that are exclusively driven by short term interests, and remain blind and ignorant when faced with a situation that puts at risk the habitability of our own planet. Not only do these powers maintain their hegemonic ambitions, they also make use of the huge media power to turn most citizens into a passive and indifferent audience.

It is, therefore, time for action. Many diagnoses have been provided, but it is now crucial to take action before it is too late. Under these circumstances, the ethics of time should be one of the main foundations for our daily behaviour at all levels, if we want to prevent what would represent a true intergenerational and historical irresponsibility.

2. Awareness

It is essential to be vigilant. We can no longer be a passive audience, we must behave as committed actors and be fully aware that we are, as rightly mentioned by President Obama, the first generation confronted with this challenge—climate change—and the last one that can cope with it. It is essential, said Pope Francis in his ecological encyclical *Laudato si*, to fight against the “globalization of indifference”, an expression later developed by Monsignor Marcelo Sánchez Sorondo, Chancellor of the Pontifical Academy of Sciences.

We need to be aware of what has happened, to learn lessons from the past: Aware of the current situation and, above all, memory of the future¹, memory that will show us how to behave today because the future is yet to be built. Our responsibility and our hope both lie on the unique capacity of human beings to be creative. Constant awareness of the equal value of all human beings. We need constant awareness that there are no first class citizens of the world: all human beings are equal in dignity! Awareness of future generations. Awareness of the Earth as a whole. Awareness, every time we wake up, of those who are excluded, who emigrate, who die unattended. Awareness of the gigantic work done by mankind and, above all, awareness of each human being, each and every one, because this is the greatest and most unwavering world heritage that must be protected. Awareness, each and every moment, of “others”, of “we-the-others”! Awareness, above all things, of how much we need to love one another, something we too often forget. Awareness of the critical role of intellectuals, scientists, teachers, artists... as leaders of the mobilization of all peoples, the clamour, the long expected voice, the voice of life...arising from so many people that have been forced to remain silent, fearful, submissive...*. Awareness of the actions that cannot be postponed. The ethics of time.

3. Prevention

The first essay I wrote was entitled “*Tomorrow is always too late*”[†], and my aim was to convey my deep concern at a time I had started to work on the early detection of metabolic disorders in neonates. These were “infrequent” diseases associated with severe mental deterioration and they could be avoided if they were rapidly detected once the child was born. If these genetic impairments are not detected and addressed in due time—because they are counterbalanced by the mother during pregnancy and go unnoticed until the child becomes an autonomous living creature—they become a severe pathology that will have no cure later on. Prevention is no doubt a great victory. But it is not easy to persuade people, let alone authorities concerned with the benefits of prevention, because results “are not visible”.

* F. Mayor, Blog del 31.11.15: “Memoria para saber lo que acontece. Memoria para inventar el porvenir”.

† F. Mayor, “Mañana siempre es tarde”. Madrid: Espasa Calpe, 1987; Barcelona: Circulo de Lectores, 1988. Blog del 05/03/12: <http://federicomayor.blogspot.com.es/search/label/Ma%C3%B1ana%20puede%20ser%20tarde>

We need to compare images from “before” and “after”. But “before” cannot be seen because “after” has been avoided with the appropriate treatment administered in due time! This is why it is of the utmost importance for society as a whole and, in particular, for mass media to be able to stress how important prevention is, though it is invisible.

“Liberty and the capacity to create will prevent us from slipping into determinism, into believing that “there is no remedy”.”

4. Education Aimed at Teaching How To Be

An educated human being is a “free and responsible” individual, as clearly stated in Article 1 of the UNESCO’s Constitution. The report on *Education for the 21st Century* was published in 1992 when Jacques Delors was President of the European Economic Community, thanks to the work of a great Commission comprising teachers of all levels from fields such as Pedagogy, Sociology, Philosophy, etc. Four main “paths” of the teaching procedure were identified: learning to be; learning to acknowledge; learning to make; learning to live together. Among all these paths, “learning to be” should be especially stressed. Francisco Giner de los Ríos said a century ago that education is in the ability to judiciously command one’s own life. We should learn how to use our unique and extraordinary capacities: thinking, imagining, anticipating, creating! I added a new “path” to those already identified by the Jacques Delors Commission: “learning to undertake”. I’ve mentioned that many times after a long tenure in the Biochemistry Department at Oxford University, whose county motto is “*Sapere aude*” (dare to know!), I thought—upon my return to Spain—that we should certainly *dare to know*, but we should also *learn how to dare*, because risk without knowledge is dangerous, but knowledge without risk is useless.

We must always bear in mind that education and training are not the same. Training radically changes sometimes because progress depends on the acquisition of new knowledge. But education is not about cultivating abilities but rather attitudes, that is, adjusting one’s own behaviour to a few immovable principles that stem from the unique capacities of human beings.

5. Liberty and Responsibility

Humanity has the supreme gift of liberty. Each human being has been blessed with the capacity to judge, to decide every time he is placed on the border between light and shadow, between certainty and uncertainty.

Human liberty was the only requirement that had to be fulfilled when the universe was created. Everything in the universe can be predicted, everything is ruled by the immutable laws of Physics and Chemistry, except human discretion. If anything is imposed as an irrefutable truth, the supreme human capacity would be dismantled, disoriented, given that everything has been previously set and pre-established. Human dignity is precisely based on

the unique and unhindered power to cope with any essential question, on the capacity deeply rooted in temporal and putrefying biological structures to freely fly across the unlimited space of spirit.

Every unique human being is capable of creating. This is where the greatest hopes of humanity lie. Until very recently these were mere sparkles in the history of mankind. Human beings have lived under the dominance of male absolute power, they have been forced to remain invisible, anonymous, silent, fearful, submissive... But today, for the first time in history, mankind has a global awareness, we can see the world as a whole, each and every dimension of our planet Earth and we know that the future can be invented. In this respect, I always like to recall President John F. Kennedy's remarkable speech made in Washington on 23rd June, 1963 that disarmament and peace are said to be unattainable goals but he would prove that they are within our grasp, because there is no challenge beyond the reach of the creative capacity of human beings.

Liberty and the capacity to create will prevent us from slipping into determinism, into believing that "there is no remedy". The past has already been written. It must now be accurately described. We must learn from the lessons of the past to be able to invent the future. To be able to provide all required conditions to each and every human being so they can all have a dignified life, and fully exercise their unique capacities.

6. A Systemic Crisis

What has been called a financial crisis is truly the visible part of a *systemic* crisis that requires courageous, creative and inclusive solutions. A crisis that cannot be addressed by simply injecting financial resources into specific areas of our system, or by promoting production in traditional sectors of our economy. It rather requires a change in paradigm based on human and environmental sustainability. And the first steps that must be taken consist in the regulation of climate change and the eradication of poverty. All individuals who breathe the air of our planet should be able to exercise their right to live a dignified life.

The upheavals of the financial crisis have become increasingly frequent and dramatic. In East Asia, Argentina, Turkey, Brazil, Russia, and Europe, the carnage caused by the "new economy" is a clear sign that we are not facing fortuitous accidents with a limited impact on economic life, but rather accidents that affect the core of our system.

These breakups that have finally produced a major contraction of economic life, due to increasing unemployment and inequality, highlight the breakdown of financial capitalism and clearly show the definite failure of today's global economic order. It must be radically transformed.

The "laws of the market" have led to a chaotic situation that could only be solved with "rescue plans" amounting to thousands of millions of dollars and resulting in what has been wisely described as the "privatisation of profits and the socialisation of losses". Support has been provided to those who are to blame and not to the real victims. This is a unique historical opportunity to redefine the global economic system with social justice as our main target.

There was not enough money for AIDS funding or for world food... but it now turns out that, when there was a real financial flood, funds were available to save from sinking precisely those who were overindulgent with the IT and real estate bubbles and who, thus, contributed to lay the financial basement for “globalization”.

“Global challenges require global solutions which necessitate cooperation at a global scale.”

Enough! The time has now come to “rescue” the citizens and, to that end, we must make a quick and courageous shift from an economy of war to an economy of global and sustainable development. We must put an end to collective shame: the investment of more than 4,000 million dollars per day in military expenses and in the weapon industry while more than 20,000 people are dying every day from hunger, most of them five year old boys and girls, must be stopped. We need a global sustainable and human-centered economic development to eradicate the abusive exploitation of natural resources (oil, gas, minerals, Coltan...) and to enforce law under the supervision of the United Nations as a renewed organization, comprising the International Monetary Fund, the International Bank “for Reconstruction and Development” and the World Trade Organization, which are endowed with all required human, technical, defence and financial resources to efficiently exercise authority at a global scale.

There should be sufficient investment in renewable energy, food production (agriculture, aquaculture, biotechnology), water procurement and supply, health, environment and education in order to build a “new economic order” that will be democratic and will benefit people. The delusion of globalization and market economy must come to an end. Civil society will no longer be a resigned audience and when the need arises it will demonstrate how much power citizens have, thanks to the new technologies. The time has come for change at the public and individual scale. The time has come for justice.

We already have knowledge. We now have to use it. To use the ethics of time before it is too late. Certainly nothing is as urgent today as the possibility for everyone to enjoy the benefits of knowledge. Global challenges require global solutions which necessitate cooperation at a global scale. We must now promote research aimed at increasing the production of food with minimum consumption of water and maximum fertilizer saving. In this regard, the transfer of the nitrogenase system that allows leguminous plants to directly capture atmospheric nitrogen to cereals and, in particular, rice, would represent a gigantic step forward not only as a means to increase food availability but also to reduce the environmental impact of fertilizers.

The frenetic pace of the war industry, instead of slowing down, has rather been accelerated for “security reasons”. The only brilliant idea that the “great four”—France, Germany, Italy and Spain—came up with when they gathered to commemorate the 60th anniversary of the Treaty of Rome was to double the war expenses. Instead of setting up the ethical compass that guided the steps of the EU founders, instead of reinforcing a monetary union with a social,

political, cultural and economic union, instead of focusing on the urgent re-instatement of an efficient multilateral system and a UN capable of quickly repairing the damage caused by plutocratic groups that were the preferred partners of the Reagan-Thatcher tandem during the eighties, instead of letting the world know during the 60th anniversary of the EU that all members of the Union would be forced to strictly observe the Charter of Fundamental Rights (2000) and that the EU could not tolerate the faintest sign of racism, fanaticism, dominion, xenophobia, or the bitter roots of past conflicts, instead of seeking a new conception of security that would include a generous contribution to development (Sustainable Development Goals) and to the agreements reached in Paris in December 2015 concerning Climate Change, acknowledging how urgent this is due to the potential irreversibility of the processes we are dealing with, instead of placing Europe at the forefront of solidarity and anticipation, the only thing that occurred to them—“If you want peace, get ready for war”—was to buy more weapons and to build more walls.

The Paris Agreement made during the “Convention on Climate Change” (from November 30 to December 13, 2015) must be put into practice by all countries because what is at stake is our common destiny. Measures should be taken at a planetary scale, and all citizens of the world who cannot accept the irresponsible behaviour of current leaders should loudly raise their voices through cyberspace. We must choose our future. The first paragraph of the Earth Charter* states the following: “We stand at a critical moment in Earth’s history, a time when humanity must choose its future...”. And it ends saying: “As never before in history, common destiny beckons us to seek a new beginning”.

It is now time to behave and to live in such a way as to ensure that the year 2020 will mark the beginning on a big scale of steady and coordinated action that will prevent agreed-upon measures to be taken in three years within a much bleaker ecological context than the one we are living in today. It is essential to ensure the on-time fulfilment of the forecasts that were approved after so many problems and in such a rush. We must, therefore, have at our disposal duly tested mechanisms to monitor and control all results.

In the Anthropocene age, it is vital to guarantee the habitability of our planet and a dignified life for all human beings, because the foundation of all human rights is the equal dignity of everyone regardless of sex, skin colour, religion, ideology, age... The systemic crisis has generated social imbalances and extreme poverty to such an extent that, due to the impact of human activity, the Earth is quickly deteriorating.

We are living in the digital era. Freedom of expression gradually allows the participation of all citizens in decision-making and, thus, democratic systems are reinforced and far-reaching changes will become possible because of the simultaneous occurrence of three positive facts: 1) there is further awareness of what is happening in the worldwide scenario, and this increases our feelings of solidarity (material, intellectual and moral as established in the Preamble of the UNESCO Constitution); 2) more women are taking part in the decision-making process, exclusively on the basis of their specific capacities; and 3) participation over long distances has been made possible by modern communications technology.

*“La Carta de la Tierra” (2000) <http://cartadelatierra.org/descubra/la-carta-de-la-tierra/>

Since the “Rio de Janeiro Earth Summit” in 1992, 25 years have already elapsed! The reaction of the citizenship has not been reflected by the mass media in such a way as to force worldwide leaders to be watchful.

Today we can contemplate the world, we must be watchful. “How difficult it is to pay attention to what happens everyday,” said Julián Marias, to avoid routine from leading us to accept the unacceptable, or to consider that there is no cure for “collateral effects” of today’s system. This genocide caused by distress and starvation is taking place every day: the way we behave with individuals who try to migrate to more developed countries because they die from starvation in their own. We must proclaim our outright rejection through cyberspace so it is more widely spread. In the digital era, we will at last be able to put into practice Mario Benedetti’s brilliant version of a popular saying: “It all depends on the pain produced by what you’re looking at”.

The ethics of time is pressing us, all citizens of the world should feel urged to react, in particular, the rulers of our societies, so that the Paris Agreement on Climate Change is implemented, and the irreversible deterioration of the Earth’s habitability is prevented. The Sustainable Development Goals should also be put into practice to avoid the fact that thousands of people continue to die every day from starvation and distress. Is there anything more irreversible than death?

7. Global Challenges Require Global Responses

An article entitled “Very Urgent Call” published on 6th February 2017 proclaimed that “in the face of serious global threats, We, the citizens of the world, should come together at once!”*. And also that it was of utmost importance to alert everyone on a global scale of the unacceptable irresponsibility we could be accused of if we do not react vigorously to redirect current trends.

In September 2015 in the “*Joint Declaration on Social and Ecological Emergency*”† endorsed by Mikhail Gorbachev, Mario Soares, Garry Jacobs, Colin Archer, Roberto Savio and François de Bernard, we had already suggested that, within a context of non-solidarity that was becoming increasingly egoistical, xenophobic, racist and fanatical, actions should be taken immediately to address environmental issues, social inequalities and extreme poverty, and to eliminate nuclear weapons. We had also stressed that we should no longer postpone the reinstatement, initially through the establishment of an extraordinary permanent meeting of the United Nations as a democratic multilateral system, a system that was placed aside by neoliberalism and replaced by plutocratic groups.

As was the case with other recent manifestos and global calls (Statement of Nobel Peace Laureates, Barcelona, December 2015‡; Campaign on “Disarmament for Development”, at the initiative of the International Peace Bureau, Berlin, September-October 2016.§), any

* <https://llamamientourgenteblog.wordpress.com/>

† <https://declaracionconjunta.wordpress.com/>

‡ http://www.fund-culturadepaz.org/doc/Declaracion-Barcelona_PN2015.pdf

§ <https://desarmeparaeldesarrollo.wordpress.com/>

eventual echo of the Paris statement was silenced by the gigantic media power, which is always keen to favour a submissive and misinformed attitude from audiences.

The Paris Agreement on Climate Change (COP) as well as the Sustainable Development Goals (SDGs) for the 2015-2030 period are seen as positive steps in the right direction. But soon the expectations have become less optimistic not only because resources are still too scarce to allow implementation of SDGs and the COP, but also because it has been reported (by the Oxfam Intermon report) that wealth is still concentrated in a few hands, and funds dedicated to development assistance and international cooperation have experienced a reduction... And then suddenly the American Presidential elections appeared on stage. The Republican party, with only a few exceptions, has always been in favour of US hegemony, and has strongly opposed democratic multilateralism (remember how it opposed the League of Nations in 1919; the United Nations System, especially in the eighties, when it entrusted Worldwide Governance to autarchic groups; it refused to endorse the Convention on the Rights of the Child in 1989; it placed the World Trade Organisation outside the scope of the United Nations; it ignored the Resolutions adopted by the UN Security Council when Iraq was invaded in 2003). Statements made concerning nuclear weapons, the rejection of United Nations and the intention not to comply with the Agreements on Climate Change etc. represent a global threat that cannot be tolerated.

It is totally unacceptable that the actions of the leaders of the most powerful countries on Earth, who have repeatedly ignored the warnings of the scientific community, imply an immediate risk for humanity as a whole and, in particular, for future generations.

Until very recently, “We, the Peoples...” could not express ourselves. Now we can do it freely. And we know what is going on. Now, we can raise our voices. And this must be done urgently. The ethics of time. A crime of silence.

In the face of a global threat, a global response must be given to anyone who prevents us from fulfilling our supreme duty: taking care of the new generations. To betray them would be a huge historical mistake.

In “Social and Ecological Emergency”^{*} (September 2015), reference was made to Pope Francis’ encyclical *Laudato Si*, to the important decision made by President Obama with his emergency plan to cope with climate change, to President Mikhail Gorbachev’s speech at the International Climate Change Symposium that took place in Rome on 27-29 May 2015 and to the Agreements between the Mayors of Capital cities and large cities, under the leadership of Paris Mayoress Anne Hidalgo. Pope Francis has made an urgent call for yet another dialogue on the way we are building the future of our planet. We need a dialogue that will bring us together, because the environmental challenge we are facing, with its human roots, is a concern and has an impact on all of us. A new universal solidarity is needed. If the current trend goes on—says the Pope—we could witness during this century unprecedented climate changes and an unparalleled destruction of ecosystems, with major consequences. Climate change is a global issue with serious environmental, social, economic, and political dimensions. And it poses one of the main challenges to mankind today.

^{*} <https://declaracionconjunta.wordpress.com/>

In chapter 4, in the section devoted to “Intergenerational Justice”, the Pope firmly states that we are not speaking of a deliberate attitude, but rather of an essential issue of justice, since the Earth we have been born in also belongs to future generations. Every potentially irreversible process requires adequate and immediate action. The mitigation of the impact of the current disequilibrium depends on how speedily we respond, especially if we consider that we will be held responsible by those who may suffer the worst consequences.

President Obama, during the presentation of his “Clean Energy Plan,” aimed at eliminating carbon dioxide emissions, with a total yearly cost of 9 billion dollars. Knowing that there could be points of no-return, he warned us that it might be too late to talk about climate change. UN Secretary General Ban Ki-moon stated that “we are the first generation that can put an end to poverty and we are the last generation that can put an end to climate change”.

President Mikhail Gorbachev, founder of the Green Cross International, warned during the aforementioned Congress of Rome that 2014 was the hottest year ever recorded as far as we know. The scientific specialists have further warned that the “range of opportunities” for a deep action on climate change is rapidly becoming narrower, although we can still stabilize the situation and promote sustainable development. In fact, next December, Paris will be the last opportunity to limit to two degrees centigrade the temperature increase with respect to the pre-industrial period... Politics has been left behind with regard to biosphere transformation processes, with a long series of crises—food, water, energy, poverty, climate. Gorbachev also added that we are indeed facing the crisis as a result of our current development model.

And on top of that, as if perspectives were not gloomy enough and urgent calls for action have not succeeded in dealing with the maelstrom of immediate results, the huge confusion of ideas and the impunity that prevail due to worldwide organizations not having enough authority, make it even more difficult for today’s mankind to be able to calmly contemplate the future and resolutely take whatever measures are necessary to challenge the *status quo*. A further call for attention should be added to these gloomy perspectives, requiring further attention and reflection before adequate measures can be taken to avoid reaching a point of no-return. This new cause for concern forces us to take into account the ethics of time, the occasion. Peter Wadhams, professor of Ocean Physics at Cambridge University, declared earlier this year* that the polar region is warming twice as fast as the rest of the planet. And, above all, that melting has a feedback effect on climate change and increases the oceans’ level, putting our lives at risk. “The time has come for action” is the subtitle of this paper. What was thought to be a consequence is now seen as the cause: since it is not reflected on ice, sunlight directly penetrates into the sea and contributes to water heating. If we take into account that ice used to occupy 1 million square kilometres in the Arctic and it only represents 100,000 kilometres now, according to estimates, we see that the “albedo” effect—the percentage of sun’s radiation that the Earth surface reflects or sends back to the atmosphere—has decreased, so that what caused melting has now become the cause for and increased global warming, since it directly affects radiation on marine waters. The sea level

* http://elpais.com/elpais/2017/01/05/ciencia/1483641450_746829.html

could rise by a full meter this century, according to Wadhams, if adequate corrective actions are not taken right away.

There are no excuses. We must overcome today's storm and be able to face the future in a level-headed and resolute manner, calling for an extraordinary and permanent meeting of the UN, because I must warn that we could be on our way to a point of no-return.

The Resolution approved by the General Assembly, entitled "*Transforming our World: The 2030 Agenda for Sustainable Development*", insists on the fact that the Agenda is a plan of action for people, planet and prosperity... This Plan will be implemented by all countries and stakeholders by means of an alliance based on cooperation. We are determined to free mankind from the tyranny of poverty and deprivation and to heal and protect our planet... We are determined to take bold and transformative steps which are urgently needed to shift the world to a sustainable and resilient path*. And it says further that "we are determined to end poverty and hunger in all countries over the next fifteen years, to fight against inequalities within each country and between countries, to build peaceful, just and inclusive societies, to protect human rights and promote gender equality and the empowerment of women and young girls, and to ensure a long-lasting protection of our planet and its natural resources."

When it comes to describing "our world today", the Resolution is particularly courageous: "We are meeting at a time of immense challenges to sustainable development. Billions of our citizens continue to live in poverty and are denied a life of dignity... There are enormous disparities of opportunity, wealth and power. Gender inequality remains a key challenge... Unemployment, particularly youth unemployment, is a major concern... Global health threats, more frequent and intense natural disasters, spiralling conflict, violent extremism, terrorism and related humanitarian crises and forced displacement of people threaten to reverse much of the development progress made in recent decades."

Natural resources depletion and adverse impacts of environmental degradation, including desertification, drought, land degradation, fresh water scarcity and loss of biodiversity, add to and exacerbate the list of challenges which humanity faces. Climate change is one of the greatest challenges of our time and its adverse impacts undermine the ability of countries to achieve sustainable development. Increases in global temperature, sea level rise, ocean acidification and other climate change impacts are seriously affecting coastal areas and low-lying coastal countries. The survival of many societies, and of the biological support systems of the planet, is at risk.

There is no doubt that this Resolution contains, given the emergency that is at stake, all guidelines that could lead humanity to efficiently act as a whole. Once again, in the present scenario with the state of our current leaders and in a system where ethical values have been replaced by stock exchange values, we cannot expect—and this is a big concern—that a remedy will soon be found to avoid us from falling into the abyss. In this regard, I have great hope in the initiative of the International Peace Bureau in Geneva, whose aim is to allocate 10% of current investments to weapons and military expenses for human and

* http://unctad.org/meetings/es/SessionalDocuments/ares70d1_es.pdf

sustainable development at a global scale*. The Campaign ended on 3 October 2016 with a big celebration in Berlin... And, once more, complete silence was the response of mass media, which have a biased approach to reality and are subservient to “markets”. It seems, therefore, that a reasonable Resolution will not become a reality because the “big powers” (military, financial, energy and media industries...) have not yet faced the clear and firm opposition of “We, the peoples...” who, despite having the means today to express themselves, still remain disseminated, lost in their isolationist circumlocutions inside their ivory towers.

“It is of utmost urgency to establish a new notion of security under vigilant supervision and direct participation of the United Nations.”

As we have seen, in the new era, it will be essential to reconceptualize security, labour and opportunity when the time comes to implement solutions.

8. A New Conception of Security

Today big powers still think that military power is the sole expression and reference for “security”. It is a big and extremely costly mistake to deal only with war issues and totally neglect other issues related to “human” welfare and well-being, the latter being in any case the only thing that should really interest us.

We see arsenals that are crammed with rockets, bombs, submarines, planes and warships, but if we turn around, we find thousands of human beings who are dying from starvation everyday or who live in extreme poverty conditions without having access to adequate health services, and we are appalled to see how habitability on Earth is gradually deteriorating, and we know that action must be taken without delay.

When we see the radical difference between investments devoted to potential conflicts and resources available to face recurrent natural disasters (fire, floods, earthquakes, tsunamis...), we are horrified to realize that the notion of “security” that is still favoured by major arms manufacturers is not only obsolete but highly prejudicial for mankind. Therefore, it is of utmost urgency to establish a new notion of security under vigilant supervision and direct participation of the United Nations. Each time we have the opportunity to see the extraordinary actions of so many people and volunteers who try to save survivors of a terrible earthquake, we feel propelled to raise our voices as citizens of the world, voicing our refusal to further tolerate the huge damage, often deadly, caused by so many forms of “insecurity” to those, the great majority, who are not protected by military troops.

Food security, access to drinkable water and health services, quick, coordinated and effective action to face emergencies: this is the only security that “We, the peoples...” deserve and dream of.

* “Disarmament for Development”, IPB, Berlin, Sept.-October, 2016. <http://demilitarize.org/get-involved/conference-2016/>

9. Democratic Governance—The Pending Evolution

No nation is exempt from responsibility: it is totally unacceptable to “transfer” to the “market” moral duties and responsibilities that should be adhered to by democratic rulers. This is why it is most urgent to have at our disposal a global behavioural code within the legal-ethical framework of the reinstated United Nations. In a period of great historical acceleration, moral foundations have become more essential than ever. We are, as in 1945, at the beginning of a new era. Amartya Sen, who won the Nobel Prize for Economics, recently stated that the state, and not the market, must be held responsible for the welfare of citizens, especially in developing countries. If we want to avoid a revolution triggered by hunger, it is vital to support the evolution towards a new global economic system. The difference between revolution and evolution is, we must insist on the “r”, meaning “responsibility”.

“Our main wealth lies in diversity and our power depends on common and universal values that keep us together.”

Not only citizens but rulers can be subject to general disapproval at a given moment. Promoting feelings in favour of or against a specific country or culture is a way to stir up terror. Nobody has chosen to be born in a specific place, to have a specific skin colour or to be a man or a woman. Merit does not lie in where or how we are born and, therefore, no one can boast about or be discriminated based on this. What matters is not how one was born but rather how one lives, how one behaves. Education must be provided to everyone during their whole life! This should be the most relevant and transcendental kernel of the great “Earth Project”: making it possible for all rulers to become aware of the crucial moment we are living in, of the ethics of time, and to promote a big movement at a global scale in favour of a future world where everyone without exception may live a dignified life.

When we see Earth as a whole, we realize today what a tremendous irresponsibility it was to have transferred to the market the political duties, guided by ideals and ethical principles that could have led to democratic governance. When we see the deterioration of the environment—air, sea, soil, the gradual standardization of cultures, despite the fact that our main wealth lies in diversity and that our power depends on common and universal values that keep us together—the erosion of so many relevant aspects of the democratic scenarios that were built with such strenuous efforts, the lack of reaction from people and institutions, resignation, submission and distraction seem even more unexpected and intolerable. How is it possible?

In view of all the above, we made the decision a few years ago to frame the *Universal Declaration of Democracy** that addresses the main dimensions, the ethical dimension especially, of the idea of “democracy”. Besides social and political democracy it mentions economic, cultural and international democracy. Article eleven of the Declaration states that “All dimensions and features of the economic democracy shall be subordinated to social justice”. Let’s make it clear: these are the principles of democracy that “must guide”

* <https://declaraciondemocracia.wordpress.com/>

humanity, according to the Preamble of the Constitution of UNESCO. Emphasis should be on “Intellectual and moral” justice, liberty, equality and solidarity. Such a Declaration, with all possible amendments, should help straighten the crooked paths that humanity is following today. As already mentioned, a great mobilization must be organised and led by intellectuals, universities and whatever institutions are sensitive enough to understand that we not only need a genuine democratic system; it’s most urgent to take the required steps.

The time has come for change and reclaiming our self-esteem. The time has come to raise our voices with both serenity and resolution. The time has come for the emancipation of citizenship, for people restricted by boundaries to become free peoples. We were not born violent; we were taught to be violent. Violence is mainly generated by examples that are found too often in our daily environment, and also by teaching history as an endless chain of conflicts and battles. We have prepared ourselves for war... and we have done precisely what we were getting ready for. Now it is clear that we want, at the beginning of a new century and a new millennium, a radical change of attitude, a change of patterns: “If you want peace, you must help to build peace with your daily behaviour”. If you want peace, “be the change you want to see in the world,” said Mahatma Gandhi.

By the end of the forties, beginning of the fifties, the keywords were “sharing” and “international cooperation”. Sharing, splitting and giving to others, appropriately distributing, this is the essence of the “democratic principles” that have to be followed in order to put an end to the times of absolute power.

We remember the endless discussions about the nature of development: it has to be *integral* and not be reduced to economic issues, it has to include, in the first place, social and cultural issues; it has to be *endogenous*; “sustainable” development according to the notion introduced by the Commission under the leadership of Gro Harlem Brundtland; and, by the end of the eighties, at the request of the then Deputy Executive Director of UNICEF, Richard Jolly, development became humane.

It is already mentioned: the alternative lies either in evolution, aimed at overcoming inertia, or in revolution. José Monleón very rightly and accurately titled his book conceived as a “warning-alert”: *21st Century: the pending evolution²**. Today, six years later, when action is more urgent than ever, due to so many processes having reached in no time a point of no return, we realize that it is essential to put into practice with no delay the pending evolution. Finally, we should dare to confront the challenges of our time, in particular, those that can lead us to pass on to future generations an intellectual and material legacy of a lower quality than the one we received. It is essential to invent the future. This can only be done if we free ourselves from fear, as stated in the Preamble of the Declaration of Human Rights. We must urgently dare to know and learn how to dare.

All of us should dare to offer our hand instead of raising it. There are grounds to expect, according to José Monleón, that we will no longer need a tsunami or a great cataclysm to feel impelled to act, to stop from being idle, distracted, and to achieve with our actions a world that is no longer as it is, but rather as it should be.

* <http://federicomayor.blogspot.com.es/search/label/Jos%C3%A9%20Monle%C3%B3n%20Evoluci%C3%B3n%20pendiente%3B%20Evoluci%C3%B3n%3B%20Revoluci%C3%B3n>

We live and die in the anxiety of a satiated society. The time will soon come for friendship, for love, for generosity, for a permanent will to serve others, for a permanent defence of equal dignity for all human beings, for living together in harmony.

“For the first time in history, transition is possible from a culture based on domination, imposition and violence to a culture of encounter, dialogue, conciliation, alliance and peace.”

Whether we recognize it or not, we are experiencing a true historical “leap forward” that could soon place us in the appropriate circumstances to be able to evolve in the right direction, preserving what should be preserved and changing without delay what should be changed. Acting rightly and on time. It is our unavoidable duty to do so. Ernesto Sábato already warned us many years ago that “there is a way to make change possible: not to give up”. This is what Stéphane Hessel told us again a few years ago—with the support of José Luis Sampedro—in his essays “Time for Outrage!” and “Time to commit ourselves!”. Let us act in such a way that we no longer deserve the lines written by Otto René Castillo in the seventies in his unforgettable *Report of an Injustice*: “One day, / the apolitical / intellectuals / of my country / will be interrogated / by the humblest / of our people. / They will be asked / what they did / when / their country / was slowly / dying out, / like a sweet campfire, / small and abandoned”. Now it is the world that is dizzily “dying out”. Let us act in such a way that we are soon able to proclaim that we were the ones to carry out the pending evolution.

10. A Historical Turning Point from Force to Word

Since the beginning of time, force was imposed upon us. Since the beginning of time, it was believed largely that “Si vis pacem, para *bellum*”. Now that human beings have become true citizens of the world and are able to express themselves, to know what is happening everywhere, now that women are participating in decision making, with all their intrinsic capacities, for the first time in history, transition is possible from a culture based on domination, imposition and violence to a culture of encounter, dialogue, conciliation, alliance and peace. On 13 September 1999, the United Nations General Assembly approved the *Declaration and Programme of Action on a Culture of Peace*^{*}. It contains a series of measures aimed at promoting a culture of peace through education; promoting sustainable social development; enforcing the fulfilment of all human rights; ensuring gender equality; promoting democratic participation; favouring understanding, tolerance and solidarity; supporting participatory communication and the free circulation of information and knowledge; promoting international peace and security.

“Words will remain our last resort,” said Blas Infante. Today, indeed, we must try to resolve most conflicts with words and not with the use of force. On 16 December 2016, the United Nations General Assembly approved a Resolution[†] which, despite recognizing the

^{*} <http://www.un-documents.net/a53r243.htm>

[†] http://www.un.org/ga/search/view_doc.asp?symbol=A/71/L.47&referer=https://www.google.es/&Lang=S

progress achieved during the last twenty years, as evident by the fact that some countries, such as Bolivia and Ecuador, have included it in their Constitution, firmly recommends, with the support of a vast majority of its members, taking the adequate measure to promote the transition from a culture based on force to a culture of peace. The first few paragraphs of the aforesaid Resolution state the following: “Recognizing the importance of the Declaration and Programme of Action on a Culture of Peace, which serve as the universal mandate for the international community for the promotion of a culture of peace and non-violence that benefits humanity, in particular future generations”... “Welcoming the efforts of the international community to enhance understanding through constructive dialogue among civilizations,... and also the inclusion of the promotion of a culture of peace in *“Transforming our World: the 2030 Agenda for Sustainable Development”*... invites Member States to continue to place greater emphasis on their activities promoting a culture of peace at the national, regional and international levels, to ensure they are further expanded and that peace and non-violence are fostered at all levels... encourages the involvement of media, especially the mass media, in promoting a culture of peace and non-violence, with particular regard to children and young people...promotes strategies in the field of information and communication technologies aimed at implementing the Declaration and the Programme of Action, as well as activities that will *increase global awareness* of the Programme of Action and contribute to its implementation”...

A shift is needed from force to word, from a culture based on force to a culture of peace. Peace within each human being, peace at home, peace in the villages, in the cities... worldwide peace. We should embrace with an open heart, with relentless proximity, with an open-handed generosity all those who have suffered the most, those who have cried more tears.

This is what is meant by a culture of peace, the duty of justice and solidarity.

11. The Academic, Scientific, Artistic & Literary Communities at the Forefront of an Overall Mobilization

Higher education is essential to ensure that all human beings act freely and are responsible for their everyday behaviour. It is vital as a catalyst that triggers social responsibility*, that will shortly allow all “peoples” to take control of their own destiny, to act according to their own reflections and never again due to someone forcing them to do so, that promotes scientific rigour because a deep knowledge of reality is an unavoidable requirement. If we only have a superficial knowledge of reality, we will never succeed in making radical transformations. Very often only extraordinary or unusual events are brought to us by the media; otherwise they would not deserve to be in the news. Scientific knowledge does not always deal with the same issues that are in the media spotlight, because science rather seeks to “see the invisible”. As Bernard Lown said when he received the Nobel Prize for Peace, “only those who see the invisible can do the impossible.”

Very often scientists have had a reactive attitude, instead of acting on their own initiative, and taking the forefront as representatives of people. But many of the issues posed by local,

* GUNI Report http://www.uoc.edu/portal/es/agenda/2017/agenda_157.html

regional and international governance require the sound knowledge that only the most experienced scientists can provide.

“The most urgent task is a great educational action, to make us aware of our current responsibilities, to help us become full citizens instead of mere subjects, to enable us to anticipate.”

It is easy to understand why members of the Parliament are not the most appropriate individuals to deal with and to set forth scientific solutions (i.e., when the issues at stake are transgenic products, diseases that can cause pandemics, the risks of different energy sources, the recapture of carbon dioxide...). Scientists should never be subservient to power, but when this type of issues has to be addressed, they should remain close to power and ensure that the solutions implemented are those that can favour individual and collective welfare as well as the environment.

We need knowledge, wisdom, gradual insight of the world as a whole. To have a better knowledge about genetic features and the epigenetic context contributes to exploring human diversity to the very limit of uniqueness. Each human being is unique and unrepeatable, and is capable of inventing, discovering, swimming against the tide.

Science and awareness will allow the great historical shift: from force to word.

12. Before it is too late: it is Time for Action

Taking into account potentially irreversible processes, it is our common responsibility to bear in mind “the ethics of time”. Acting in a way that will prevent us from taking a path that allows no return. We specifically have to take into account next generations: our legacy cannot condemn them to have a standard of living that prevents them from fully exercising their unique capacities. In November 1997, the General Conference of the UNESCO approved the *Declaration on the Responsibilities of the Present Generation towards Future Generations**. We would like to highlight one of the paragraphs of its Preamble: “Bearing in mind that the fate of future generations depends to a great extent on decisions and actions taken today, and that present-day problems, including poverty, technological and material underdevelopment, unemployment, exclusion, discrimination and threats to the environment, must be solved in the interests of both present and future generations...” The articles in this Declaration emphasize the importance of freedom of choice, maintenance and perpetuation of humankind, preservation of life on Earth, the protection of environment, human genome and biodiversity, cultural diversity and cultural heritage, peace, education and development, non-discrimination...

Let us look into the eyes of our descendants, of children and of the poorest among us, and let us resolutely proceed to act against those who, in the hurricane of current political

* Declaration on the Responsibilities of the Present Generation towards Future Generations, UNESCO, 1997. http://portal.unesco.org/es/ev.php-URL_ID=13178&URL_DO=DO_TOPIC&URL_SECTION=201.html

and economic irresponsibility, could lead mankind to a situation that is unacceptable in all respects. As already mentioned, the most urgent task is a great educational action, to make us aware of our current responsibilities, to help us become full citizens instead of mere subjects, to enable us to anticipate, now that digital technology has made it possible.

To be able to address the serious global threats that can lead us to irretrievable situations if they are not quickly resolved, it is indispensable to take into account the ethics of time, and to call for a huge mobilization at a global scale in favour of an Extraordinary Meeting of the General Assembly of the United Nations, whose aim shall be to approve all adequate measures to prevent us from reaching a point of no-return, both from the environmental and social point of view. During this meeting a “roadmap” should also be approved for the immediate reinstatement of democratic multilateralism, for a renewed United Nations that would put into practice the beginning of the Charter—“We, the peoples...”—through a General Assembly consisting of 50% of representatives of all nations and 50% of representatives from the civil society institutions. At the same time the Security Council will have the support of a Socio-economic Council and an Environmental Council. The veto power will no longer exist, and voting will be proportional. To address special issues, scientific rigour will be the main criterion. Two world Commissions will be created to specifically follow up the implementation of the COP Agreements on Climate Change and the Sustainable Development Goals.

We, the peoples, should raise our voice because we feel propelled to do so by the urgency of potentially irreversible processes. We cannot remain silent. Nor should we continue to be an indifferent audience, beset by the gigantic media power of the “markets” that have succeeded in generating a “massive distraction”, as stated by Soledad Gallego-Díaz*. “Nothing that you build has stood. Any system you contrive without us will be brought down,” warned Leonard Cohen.

Therefore, the time has come for a great mobilization at the global scale so that peoples at last take control of their own common destiny. Words are our only “mass construction weapons”. We shall all be united, raise our voice... or we shall become accomplices to a crime of silence.

“The voice / that could have been the remedy / ...and finally was nothing / due to fear”.

A crime of silence†.

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Notes

1. Federico Mayor, *Memoria del futuro* (Paris: UNESCO, 1995). <http://federicomayor.blogspot.com.es/search/label/Memoria%20del%20futuro>
2. Jose Monleón, *Siglo XXI: la evolución pendiente* (Madrid: Clave Intelectual, 2011).

* F. Mayor, Blog: “Ni un día más de silencio” (31/03/17). <http://federicomayor.blogspot.com.es/2017/>

† F. Mayor, “Delito de Silencio”. Editorial Comanegra, 2011.

Transforming Education for a Transition into Human-centered Economy and Post-normal Times

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Abstract

Solutions to the major problems of our time require a radical shift in our perceptions, thinking and values. Post-normal times (characterized by complexity, chaos and contradictions), post-normal science (characterized by uncertainties, systems view of thinking, alternative perspectives, unknown unknowns, values) and human-centered economy are conceptions that we need to take into consideration to define a new role for science. Managing the transition from the knowledge economy (mainly dominated by the use of analytical skills) to human-centered economy (mainly dominated by the use of creativity, character, passion) requires visionary leadership and a wide range of partnerships, and developing new and more comprehensive, flexible, innovative models of learning. Education today should prepare current generations for the continuously changing world of the future. The critique on modern education ranges across the political spectrum (from 'the Right' to 'the Left'); across countries (both 'western' and 'non-western'); across genders (within men's, queer and feminist movements); and across worldviews (e.g. post-modernism, critical theory, neo-Marxism, critical traditionalism). These critiques all imply that 'modern' education has now become 'outdated' (Milojevic, 2005). Technology and globalization are significantly transforming work. However, education and training systems, having remained mostly static and under-invested in for decades, are largely inadequate to meet the needs of the new labour markets. How the disconnect between education systems and labour markets can be eliminated is a much disputed topic and it may require a paradigm shift in current thinking. Citizens and consumers today are experiencing a growing sense of alienation, loss of values and flexibility (Zajda, 2009). There is no form of education which would meet different needs worldwide. Education is a basic human right and it cannot be purely demand-driven. Diversity of educational models, even within a given country, is something that should be encouraged (Chuan, 2015). The main aim of this paper is to discuss and show the need for new alternative education systems which could eliminate the basic deficiencies of the current systems in the post-normal times. Citing the main reasons behind the necessity for formulating new ways of thinking and using them in the formulation of new education policies is another aim of the paper. The know-how and analytical skills that have made people indispensable in the knowledge economy will no longer give them an advantage over increasingly intelligent machines. Employees in a human-centered economy will need to possess values like creativity, character, passion and collaboration that cannot be programmed into computer traits. Our human qualities will set us apart from machines and make organizations superior

(Seidman, 2014). The fundamental gap between the clear success of knowledge acquisition in the natural sciences versus the rather minimal success in understanding the dynamics of the social realm is the inherent non-linearity, instability, and uncertainty of social systems' behaviour. There could be possible alternative ways of closing this gap. Today we need deep ecological ethics, especially in science. Sometimes what scientists do is not life-furthering and life-preserving, but life-destroying. The systems view of life (the whole is bigger than the sum of its parts) may overcome the Cartesian metaphor. Physics, together with chemistry, is essential to understand the behaviour of the molecules in living cells, but it is not sufficient to describe their self-organizing patterns and processes. Every system, every part of it, is connected to every other system, at least indirectly. Systems and parts of a system interact in ways that can produce surprising and counter-intuitive results. The tendency to produce unexpected results makes predicting the outcome of systems' interaction difficult, if not impossible. If we think that understanding parts allows us to understand the whole, we may reach wrong conclusions. The whole is bigger than the sum of its parts. In post-normal times we need to teach people how they can be more antifragile and enjoy the complexity of daily life. This is another attempt to show that we need a reconsideration of the relevance of the certainty and stability of the Newtonian paradigm with respect to all natural and social phenomena.

1. Introduction

As the twenty-first century unfolds, it is becoming more and more evident that the major problems of our time—energy, the environment, climate change, food security, financial security—cannot be understood in isolation. They are systemic problems, which means that they are interconnected and interdependent. Solutions to the major problems of our time require a radical shift in our perceptions, thinking and values (Capra and Luisi, 2014).

Economics, which ought to be a science for human emancipation, has become a dehumanized expert ideology remote from people's practical concerns and their ability to understand what to do (Hart et al., 2010). Hart and others also explain the meaning of a human-centered economy in their book. According to their explanation, calling the economy "human-centered" means putting people first, placing their thoughts, actions and lives as the main concern of economy.

The age that we are living in is called more frequently as "post-normal times", which is characterized by complexity, chaos and contradictions (Sardar, 2010).

Of course, there are solutions to the major problems of our time; some of them could even be simple to solve. However, most require a radical shift in our perception, thinking and values.

As Capra and Luisi argue, solutions are those that are sustainable. A sustainable society must be designed in such a way that its ways of life, businesses, economy, physical structures, and technologies do not interfere with nature's inherent ability to sustain life. Unfortunately, the object of an economy gradually moved from human well-being to merely making more and more money (by producing and selling things).

To transform the knowledge economy to a human-centered economy, how we can redesign standard education is another important question. The world is changing very rapidly and this requires teaching different content and ways of thinking to people to prepare them for unknown unknowns and uncertainties of our time.

As Bertrand Russell has written in *Education and the Social Order*, education is desirable for all modern civilized states. People and states can attribute different meanings to it and there are as many divergent views on “how it must be designed or organized”. It is easier to answer “why it is desirable and why it is one of the most important topics in the political agenda of almost all states”. It is believed that through this way a significant improvement can be achieved in human welfare.

Still there is no consensus on “what kind of curriculum will prepare graduates for an uncertain global future”. As it is highlighted in “the 2006 UK Professional Standards Framework”, students are now valued for their independence, openness of mind, creativity, and problem-solving skills.

Compulsion in education may destroy originality and intellectual interest (Russell, 2010). The education system should make lessons voluntary, lay emphasis on spontaneity, create natural curiosity, especially to embrace the world’s complexity today. We need different forms of citizenship, different ways of understanding individuality and cooperation. Getting ready for an uncertain future and improving the sense of obligation to wider communities may require radical changes in the design and content of the current education system.

After introduction, in the second part of the paper, the possible and probable necessities of new designs in the education system and new ways of thinking will be discussed. In the third part of the paper, the basic assumptions of today’s orthodox economic theories, namely “rationality” and its limits, and decision making under uncertainty and post-normal times will be discussed.

Post-normal Science is a new concept of complexity science related issues and focuses on aspects of problem solving that tend to be neglected in traditional scientific practice: uncertainty, value loading, and plurality of legitimate perspectives (Funtowicz & Ravetz, 2003).

And finally in the fourth part, cybernetics, chaos and complexity concepts will be discussed.

There are lots of questions to which lots of different replies can be given. Do we need a uniform system of education (similar universities—similar courses—similar contents), do we need the same framework, do we need to formulate everything with a mechanistic view of old times? Do we need uniformity or diversity?

New problems of the world and complexity of decision making may require deviations from formal methods and a standardized curriculum.

A new scientific conception of life can be seen as a broad paradigm shift from a mechanistic to holistic and ecological worldview. A new conception of life involves a new kind of thinking—thinking in terms of relationships, patterns, and context.

In science, this way of thinking is known as “systemic thinking” or “systems thinking”, which aids our understanding of life (Capra and Luisi, 2014). It is time to teach students about cognitive biases. It is time to teach them new ways of thinking. It is time to teach them how to decide under complex and chaotic situations and also how they can learn from their mistakes and become more antifragile. It is time to teach them how to cope with the main problems of the post-normal times.

“To transform and prepare our education system for the transition into a human-centered economy, we should start questioning the basic assumptions of current economic theory.”

2. Education and Thinking

2.1. Education

To understand the requirement of new tools to solve the new problems of post-modern times we will start with traditional definitions of “education” and “science”.

The word ‘education’, which “is derived from educare (Latin) ‘bring up,’ is related to educere ‘bring out,’ ‘bring forth what is within,’ ‘bring out potential’ and ducere, ‘to lead’” (Bhatt, 2017).

So, the word ‘education’ in a broad sense refers to “any act or experience that has a formative effect on the mind, character or physical ability of an individual. In its technical sense, education is the process by which society deliberately transmits its accumulated knowledge, skills and values from one generation to another” (Eurostat, 2017).

Education is not always about the capacity to think, but the choice of what to think about. (Chou, 2017).

Science is a body of empirical, theoretical, and practical knowledge about the natural world, studied by scientists who emphasize the observation, explanation, and prediction of real world phenomena.

So, education is generally taken as a transmission of knowledge and ideas. But how they can be applied to our daily life is a missing part. There is an urgent need to connect academic studies with the real world.

Whether uniformity in education is good for learning is a disputed topic. Generally, there are two sides to any debate. There could be some good arguments for uniformity such as efficiency, which may require some consistency in the process of educating large numbers of people. Some educators think that creating general standards and equality across schools, districts, and states might be a fair approach.

But lots of possible benefits of diversity are expressed by educators as well. Teachers’ experiences prove that students learn in different ways. There are differences in learning

styles, cognitive styles, psychological types and there are multiple intelligences. So, the need to address the imbalance between uniformity and diversity is widely highlighted by educators (Baofu, 2011).

“The main aim of education should not be about finding ways to know the future, but rather to find and teach ways to live and act in a future characterised by uncertainty.”

As expressed by a well-known quote, “Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid”*.

Education is structured as a uniform standardized format and in many systems it does not allow for self-directed individual exploration. Many education systems are based on competition.

A number of recent studies have shown that in many developed countries happiness is not proportionate to economic wealth. Moreover, the unfettered competition and concepts of modern life may lead to serious damages to our mental health. Mental health is defined as the emotional resilience that enables us to enjoy life and to survive pain, disappointment and sadness, and an underlying belief in our own, and others’ dignity and worth. It also allows us to engage productively in and contribute to society or our community (Universities UK, 2015).

To transform and prepare our education system for the transition into a human-centered economy, we should start questioning the basic assumptions of current economic theory. The theory needs to validate that wealth is a poor indicator of happiness. Also, it should take into account that making mistakes is the key to making progress (Dennett, D.C. 2014).

The main aim of education should not be to find ways to know the future, but rather to find and teach ways to live and act in a future characterised by uncertainty.

2.2. Thinking

Over the course of the 20th century, the mature economies of the world evolved from “*industrial economy*” to “*knowledge economy*”. Now we are at another watershed moment, transitioning into “*human-centered economy*” and the shift has profound implications for the field of management (Seidman, 2014).

In his article, Seidman explains the “*human-centered economy*” concept in a clear way. He explains the stages through the work that people predominantly do in them. The industrial economy replaced the agrarian economy when people left farms for factories; then the knowledge economy pulled them from factories to office buildings. When that happened, the way workers added value changed, too. Instead of leveraging their brawn, companies capitalized on their brains. No longer hired hands, they were hired heads (Seidman, 2014).

* Although this quote is used in association with Albert Einstein, some claim that Einstein did not say it.

Intelligent machines, the developments of artificial intelligence, and the use of virtual reality may appear to dominate over the analytical skills of humans. However, humans' creativity, passion, character, collaborative spirit, their humanity will make them superior and distinct and these skills cannot be programmed as software.

“A shift in metaphors is needed—a change from seeing the world as a machine to understanding it as a network.”

In the human-centered economy, the most valuable workers will be hired hearts. The new paradigm shift requires the use of new contents and curriculum which necessitate improving abilities and strengths.

As Keynes said, “The difficulty lies, not in the new ideas, but in escaping from the old ones.” Prediction and probability are limited ways of thinking about the future.

Questions about the origin/nature and meaning of life are as old as humanity itself. They lie at the very roots of philosophy and religion.

The act of thinking produces thoughts. A thought may be an idea, an image, a sound or even an emotional feeling that arises from the brain.

According to the systems view of thinking, every system and every part of a system are connected to every other system, at least indirectly. Systems and parts of a system interact in ways that can produce surprising and counter-intuitive results.

The tendency to produce unexpected results makes predicting the outcome of systems' interaction difficult, if not impossible.

A unified systemic vision includes and integrates life's biological, cognitive, social, and ecological dimensions, and also sees the philosophical, spiritual, and political implications (unified view of life).

A shift in metaphors is needed—a change from seeing the world as a machine to understanding it as a network.

Since the time of early Greek philosophy, there has been a tension between mechanism and holism.

From a historical perspective, we first observe the extensive use of Cartesian mechanism (from 17th to 20th centuries) and then we observe the rise of systems thinking and now researchers are working on the development of complexity theory and chaos theory. These changes also bring about new ways of thinking.

Leonardo da Vinci (1452-1519) was different from others and he developed an empirical approach involving the systematic observation of nature, reasoning, and mathematics as the main characteristics of the scientific method.

The shift from the organic to the mechanistic worldview was initiated by Rene Descartes (1596-1650) (Cartesius is his Latinized name).

We observed the rise of Cartesian mechanism (from 17th to 20th centuries). Copernicus, Kepler, Galileo, Bacon, Descartes, Newton and others held a mechanistic view.

The first strong opposition to the mechanistic Cartesian paradigm came from the Romantic Movement in art, literature, and philosophy in the late 18th and early 19th centuries.

Johann Wolfgang von Goethe (1749-1832), a central figure in this movement, conceived of form as a pattern of relationships within an organized whole, a conception which is at the forefront of systems thinking today.

The 1940s saw the formulation of actual systems theories. These first theories, which we may call the ‘classical systems theories,’ include in particular general systems theory and cybernetics.

But still, not only in natural sciences but also in social sciences there is a tendency to resort to mechanistic view of thinking. Changes in paradigms occur in discontinuous and revolutionary breaks which are called paradigm shifts, according to Thomas Kuhn. We need a paradigm shift in our ways of thinking.

When we look at our modern industrial culture, we have overemphasized self-assertive thinking and neglected the integrative tendencies. We may observe this both in our thinking and in our values. Self-assertive values are competition, expansion, domination. In patriarchal societies, they are not only favoured but also given economic rewards and political power. This is one of the reasons why the shift to a more balanced value system is so difficult for most people.

However, there is another kind of power, one that is more appropriate for the new paradigm—power that comes with the empowerment of others. This power does not arise from hierarchy but from the network, the central metaphor of the ecological paradigm.

In a social network, people are empowered by being connected to the network. Power as empowerment means facilitating this connectedness.

Table 1: Different Types of Thinking and Values

THINKING		VALUES	
Self-assertive	Integrative	Self-assertive	Integrative
Rational	Intuitive	Expansion	Conversation
Analysis	Synthesis	Competition	Cooperation
Reductionist	Holistic	Quantity	Quality
Linear	Non-linear	Domination	Partnership

Source: Capra, F and Luisi, P.L. (2014)

Instead of self-assertion, we should teach students to use integrative thinking. In a similar way, instead of encouraging rational thinking, we should encourage intuitive thinking.

As for values, we should teach the basic benefits of cooperating with others, why we need to prefer quality over quantity, and why especially in management sciences we should teach the benefits of partnership over domination.

Educational policymakers should also think about “how we can change the way people think about things”.

Thinking in new and interesting ways will give us better results in this complex and chaotic world.

People are pretty good at anticipating continuous change and most changes are continuous such as getting older, growing the economy, warming the planet. The opposite is true for discontinuous change. It happens so suddenly that there is little time to adapt.

The Postmodern Condition by Jean-François Lyotard was one of the first books that began to question the very status of science. Lyotard used the term “intractable” to mean that some areas of study, of experience, are simply too complex or too random to be predicted or understood. His conclusion was not anti-science but he wanted to show that there are many areas of life that will always remain intractable to science like the self. The central instrument of contemporary science is “reason”.

Nietzsche called this “the paranoia of reason” and Lyotard preferred the “tyranny of the experts”. Lyotard, influenced by Werner Heisenberg, Kurt Gödel, and Thomas Kuhn, was impressed by the new ideas of the late 1970s and 1980s, in particular catastrophe theory, chaos theory, and the problems posed by incomplete information, ‘fracta’ (Watson, 2002). He claimed that the very meaning of knowledge is changing and it is producing not the known but the unknown.

Many philosophers tried to show that there are some natural, universal, constant things but there are also conventional, local, variable things in life.

According to Yuval Harari (*Homo Deus*, 2016), in medieval Europe, the chief formula for knowledge was: Knowledge=Scriptures x Logic. To answer a question people read manuscripts, and used logic to understand the exact meaning of the text.

The Scientific Revolution proposed a different formula for knowledge in which Knowledge=Empirical Data x Mathematics. If we answer a question, we need to gather relevant empirical data, and then use mathematical tools to analyse the data. Harari accepts that this formula led to many successes in astronomy, physics, medicine and other disciplines. But he highlights a very important drawback: it could not deal with questions of value and meaning.

He offers another formula in which Knowledge=Experiences x Sensitivity. If we want to know the answer to an ethical question, we need to connect to our inner experiences, and observe them with the utmost sensitivity (paying attention to our emotions and thoughts).

Many scientists, researchers and thinkers suggest different and novel ways to change our view of thinking and values in post-normal times and many of them agree that we need a radical change in our views.

This is a very vital conclusion that must be dealt with seriously and understood by policy- and decision makers.

3. Rational Irrationality Problem & Decision Making in Post-normal Times

3.1. Irrationality of Rationality

The world is changing. It seems the world will be directed from many places and by many people. The new era can be called a multi-polar world (Zakaria, 2009).

World history is full of economic, social and political crises. We live in a world that is characterised by unpredictable events which we cannot control (Banerjee, Ercetin and Tekin, 2014).

Traditional economic theory assumes rational actors exist. Economists are using models that replace Homo sapiens with a fictional creature called Homo economicus. Contrary to the fictional world of Homo economicus, humans are not perfect, and make a lot of bad predictions (Thaler, 2015).

The contributors of chaos theory showed us that the certainty and stability of the Newtonian paradigm must be reconsidered. With the focus of chaos theory on non-linearity, instability, and uncertainty the application of this theory to the social sciences is essential and must replace the dominant Newtonian view of a mechanistic and predictable universe.

Science is characterized by “certainty” and “value neutrality”. Of course emerging environmental issues do not render the use of traditional scientific approaches irrelevant, the task is to choose the appropriate kind of scientific problem solving strategies (Funtowicz and Ravets, 1994).

Empirical evidence shows ways in which our judgements and decisions differ from rational choice theory. At its most basic level, behaviour is rational if it is goal-oriented, reflective and consistent (across time and different choice situations).

“Rationality” can be defined in different ways. In business dictionary it is stated that the mental state of a rational person is characterized by (1) beliefs that are coherent (not contradictory) and compatible with the person’s experience within a given context, (2) purposeful (intended to produce certain results) behaviour guided by means versus ends analysis, (3) decision making based on cost-versus-benefit (pain versus gain) evaluation, and (4) an overall optimization approach (utility maximization) expressed by attempts to maximize advantages or gains and to minimize disadvantages or losses (Business dictionary, 2017).

Daniel Kahneman and Amos Tversky introduced the idea of cognitive biases and their impact on decision making in 1974. A forerunner of Kahneman and Tversky was Herbert

Simon. He wrote about what he called “bounded rationality”. People, he said, lack the cognitive ability to solve complex problems (Thaler, 2015).

“Economics as a science needs a scientific revolution.”

In a similar way, “Bounded Rationality” is defined as follows: It is the conception that decision makers (irrespective of their level of intelligence) have to work under three unavoidable constraints: (1) only limited, often unreliable, information is available regarding possible alternatives and their consequences, (2) the human mind has only limited capacity to evaluate and process the information that is available, and (3) only a limited amount of time is available to make a decision. Therefore, even individuals who intend to make rational choices are bound to make satisfying (rather than maximizing or optimizing) choices in complex situations. These limits (bounds) on rationality also make it nearly impossible to draw up contracts that cover every contingency, necessitating reliance on rules of thumb (Business dictionary, 2017).

George Ritzer explains that in the McDonaldization of Society there are reactionary irrationalities that come out of the hyper-rationality of modern bureaucratic structures.

Peter Kaufman (2012) expressed the main problems of bureaucracy and rationality. He wrote: “George Ritzer based his idea on Max Weber’s theories of bureaucracy and rationality. Weber was concerned that capitalism and industrialization were fuelling a world where our individual freedoms were being eroded. He warned that we were increasingly living in an iron cage, as we become trapped in an impersonal world that values efficiency, rationality, and control over individuality and autonomy.”

Ritzer’s theory of McDonaldization of society has four dimensions: *Efficiency*: Completing tasks in the most productive and proficient manner. *Calculability*: Being able to quantify the output; emphasizing quantity over quality. *Predictability*: Ensuring that tasks, results, and products are always the same. *Control*: Replacing human efforts with non-human technology.

He concludes that when we try to become more efficient, calculable, predictable, and controlling, we often end up with illogical, counterintuitive, and problematic results (we become more irrational).

Ritzer saw irrationality as a side effect of over-rationalized systems. He also cited that a rational system may result in events or outcomes that are neither anticipated nor desired, and in fact, may not be so good (McDonaldization, 2017).

Uriel Abulof (2015) argues that rationality has become an “essentially contested concept,” as its “proper use inevitably involves endless disputes.”

He identifies “four fronts” for the disputes about the meaning of rationality:

1. The purpose or function of rationality: Is it descriptive/explanatory, prescriptive or subjunctive (rationality “as if” real)?

2. The subject of rationality: What, or who, is rational: the choice, the act, or the choosing actor?
3. Cognition: What is the quality of the cognitive decision-making process: minimal (calculative intentionality) or optimal (expected-utility)?
4. Rationale: Is rationality merely instrumental, that is, agnostic about the logic of human action and its motivations (instrumental rationality) or does it substantially inform them (substantive rationality focusing on material maximization)?

So what we need to understand by rationality is not very clear. The formal definition of Rational Expectations is, the subjective probability distribution regarding future reality inside the heads of economic actors coincides with the objective probability distribution operating outside their heads in reality.

According to Thaler and Sunstein (2009), decision theorists (*Homo economicus*) are rational but humans (*Homo sapiens*) cannot be.

As stated by Taleb, “The master of all harmful mistakes: Mistaking absence of evidence (of harm) for evidence of absence”.

According to David Orrell (2012), the economy is unfair, unstable and unsustainable. That is why economics as a science needs a scientific revolution.

3.2. Decision Making under Uncertainty and Post-normal Times

Both at the macro and micro levels decision-making is very difficult. Almost all decisions are made under a great risk or uncertainty.

These days, current economics literature covers terms of rational irrationality and the illusion of predictability. The world is full of information. Information is more complex, interdependent, hectic, non-linear, co-evolving and less stable.

It is known that the occurrence of extreme events cannot be predicted from past history.

Policy making, decision making and other aspects of the management of complex systems are becoming increasingly difficult. Management philosophies, approaches, and techniques were developed during simpler times. However, complex systems are dynamic rather than static, evolve or are driven into domains of instability, and emerge as new structures. There is now a growing gap or loss of fit between our systems-management capabilities and the real world.

The conception of ‘post-normal’ was first introduced by Ravetz and Funtowicz.

In his paper (2010) Ziauddin Sardar states that, “*All that was ‘normal’ has now evaporated; we have entered post-normal times, the in between period where old orthodoxies are dying, new ones have not yet emerged, and nothing really makes sense. To have any notion of a viable future, we must grasp the significance of this period of transition which is characterized by three cs: complexity, chaos and contradictions. These forces propel and*

sustain post-normal times leading to uncertainty and different types of ignorance that make decision-making problematic and increase risks to individuals, society and the planet”.

He underlined the importance of humility, modesty and accountability to transform post-normal times into a new age of normalcy. For him logic and rationality, the virtues of modernity, alone will not secure us from the challenges of post-normal times.

Decision-making can be regarded as a problem-solving activity terminated by a solution deemed to be satisfactory.

It is therefore a process which is more or less rational or irrational and can be based on explicit or tacit knowledge.

A heuristic is a thinking rule which helps to reduce the effort or cost of finding a solution to complex problems.

Whatever the type of thinking used, we know that people are not rational and they have many cognitive and behavioural biases. Cognitive bias describes the inherent thinking errors that humans make in processing information.

Some of these have been verified empirically in the field of psychology, while others are considered general categories of bias.

These thinking errors prevent one from accurately understanding reality, even when they are confronted with all the needed data and evidence to form an accurate view.

An example is the Bandwagon effect which is the tendency to do (or believe) things because many other people do (or believe) the same. This is related to groupthink, crowd psychology, herd behaviour, and manias.

Confirmation bias is another one which is the tendency to search for or interpret information in a way that confirms one’s preconceptions.

Apart from these biases, the psychologist Daniel Kahneman has theorized that a person’s decision-making is the result of an interplay between two kinds of cognitive processes: An automatic intuitive system (called “System 1”) and a carefully planned rational system (called “System 2”). System 1 is a bottom-up, fast, and implicit system of decision-making, while system 2 is a top-down, slow, and explicit system of decision-making. System 1 includes simple heuristics in judgment and decision-making (Kahneman, 2012).

Whichever system is used it is known that human judgment and preference often do not follow the rules of rationality. Even human experts may have an inconsistent set of preferences, which can be problematic when designing a decision support system that attempts to maximize expected utility (Kochenderfer, 2015).

Many executives are surprised when previously successful leadership approaches fail in new situations, but different contexts call for different kinds of responses. Before addressing

“Human judgment and preference often do not follow the rules of rationality.”

a situation, leaders need to recognize which context governs which situations and tailor their actions accordingly.

Snowden and Boone have formed a new perspective on leadership and decision making that is based on complexity science. The result is the Cynefin framework, which helps executives sort issues into five contexts:

Simple contexts are characterized by stability and cause-and-effect relationships that are clear to everyone. Often, the right answer is self-evident. In this realm of “known knowns,” leaders must first assess the facts of a situation—that is, “sense” them—then categorize and respond to them.

Complicated contexts may contain multiple right answers, and though there is a clear relationship between cause and effect, not everyone can see it. This is the realm of “known unknowns.” Here, leaders must sense, analyze, and respond.

In a *complex* context, right answers cannot be ferreted out at all; rather, instructive patterns emerge if the leader conducts experiments that can safely fail. This is the realm of “unknown unknowns,” where much of contemporary business operates. Leaders in this context need to probe first, sense, and then respond.

In a *chaotic* context, searching for the right answers is pointless. The relationships between cause and effect are impossible to determine because they shift constantly and no manageable patterns exist.

This is the realm of unknowables (the events of September 11, 2001 fall into this category). In this domain, a leader must first act to establish order, sense where stability is present, and then work to transform the situation from chaos to complexity.

The fifth context, *disorder*, applies when it is unclear which of the other four contexts is predominant.

If we can teach the ways of decision-making under uncertainty and if we can manage to teach counter-factual analysis to students (which means preparing “what if” type scenarios of the future and using collective intelligence for finding possible, plausible answers), they can be more flexible and resilient.

4. Cybernetics

In post-normal times instead of having a mechanistic view of life, we can start teaching complexity and chaos theories to make people more resilient and antifragile against many unknown unknowns of the future. We need to explain the novelties of complexity theory and chaos theory first. Complexity, that is describing objects with many interconnected parts, can now be observed not only in natural events but in many other systems. A tropical rainforest, multi-celled organisms consisting of proteins, membranes, cells, organs are good examples of a complex system. But many other systems important to humans exhibit similar complexities; markets with their varieties of buyers and sellers, groups participating

in mutual funds, economies with hierarchies of workers, departments, firms, industries, the internet with users, stations, servers, websites and more (Holland, 2014)

The general systems theory was advanced by Ludwig von Bertalanffy in the 1940s and cybernetics, by Ross Ashby in the 1950s. Bertalanffy recognized that the patterns of organizational characteristics of life are generated by the simultaneous interactions of a large number of variables, but he lacked the means to describe the emergence of those patterns mathematically.

The mathematics of his time was limited to linear equations, which are inappropriate to describe the highly non-linear nature of living systems (Capra and Luisi, 2014).

The field was further developed by Jay Forrester and members of the Society for Organizational Learning at MIT which culminated in the popular book *The Fifth Discipline* by Peter Senge which defined systems thinking as the capstone for true organizational learning.

The social sciences, historically, have imitated both the intellectual and methodological paradigms of the natural sciences. From the behavioural revolution, to applications such as cybernetics, to a predominant reliance on the certainty and stability of the Newtonian paradigm, the social sciences have followed the lead of the natural sciences (Elliott and Kiel, 2004).

The Butterfly Effect is the conception that small causes can have large effects. Initially, it was used with weather prediction but later the term became a metaphor used in and out of science.

In chaos theory, the butterfly effect is the sensitive dependence on initial conditions in which a small change in one state of a deterministic non-linear system can result in large differences in a later state.

The mechanistic paradigm is based on anthropocentric (human-centered) values, and deep ecology is grounded in ecocentric (Earth-centered) values. The holistic (ecocentric) worldview acknowledges the inherent value of non-human life, recognizing that all living beings are members of ecological communities, bound together in networks of interdependencies.

The cyberneticists concentrated on non-linear phenomena like feedback loops and neural networks, and they created the beginnings of a corresponding non-linear mathematics, but the real breakthrough came several decades later with the formulation of complexity theory, technically known as ‘non-linear dynamics’ in the 1960s and 1970s.

Cybernetics was the result of a multidisciplinary collaboration between mathematicians, neuroscientists, social scientists, and engineers, a group that became known collectively as cyberneticists. To deal with the complex problems of post-normal times, we need a post-normal science which can bring many disciplines together.

When we have chaos we cannot use traditional methods. Chaos is a phenomenon encountered in science and mathematics wherein a deterministic (rule-based) system behaves unpredictably. That is, a system which is governed by fixed, precise rules, nevertheless

behaves in a way which is, for all practical purposes, unpredictable in the long run (Feldman, 2012). During the 1980s and 1990s, complexity theory generated great excitement in the scientific community. Traditional curriculum still uses it widely.

Science and standardized curricula need a paradigm shift. It is better to diversify curricula and prepare people for uncertainties of the post-normal times.

N.N. Taleb's suggestion for today's post-normal times and increasing uncertainties of modernity is a good step to start with in the formulation of alternative education systems. In *Antifragile*, he explains how we can move from the fragile to robust and antifragile domain.

He argues that it is better to expect randomness, uncertainty, chaos; there is no need to hide from them. Someone or something is antifragile if it benefits from shocks, thrives and grows when exposed to volatility, randomness, disorder, and stressors and loves risk and uncertainty.

Antifragility is beyond resilience or robustness. The resilient resists shocks and stays the same. The antifragile gets better. If something is harmed by volatility, it is fragile. If something benefits from it, it is antifragile (Taleb, 2012).

5. Conclusion

The age that we live in has seen the most of man-made change. Civilization has been one of the great accelerators of such change. Human skills and natural facts came together to make possible a new order of life based on the exploitation of nature (Roberts, 1997).

In the first stage of globalisation states came closer and cooperated, in the second stage of globalisation companies came closer and cooperated, now in the third stage, individuals are coming closer and cooperating with each other, sharing their knowledge and experiences.

There is a new role for science, both natural and social. The facts that are taught in textbooks used in training institutions are still necessary, but they are no longer sufficient. Most problems we face today have more than one plausible answer and many have no well-defined scientific answers at all (Funtowicz and Ravetz, 2003).

The problem is whether we will allow today's modernization to destroy next generations' world to live or to use today's modernization to improve the quality of the water we drink, the air we breathe, the environment we live in.

Short-termism, quarterly capitalism is used to describe the prevailing practice of managing businesses from one three-month period to the next, and focusing budgets and strategies on the constant effort to ensure that each quarter's earnings per share report never fails to meet projections or the market's expectations (Gore, 2014).

Creativity, individualized education, creative laziness must be taken into consideration by decision makers, leaders and policymakers when designing a new education system.

Learning to live together, tolerance for other cultures, races, religions, skin colours, other creatures, respect for the environment, human rights, animal rights and using collective

intelligence, being aware of complexity, learning antifragility, being aware of bounded rationality, using counterfactual reasoning, adding philosophy, fine arts and music to Science-Technology-Engineering-Mathematics (STEM) education are some of the new contents that we should concentrate on.

“The global economy has evolved from a material-based economy into a knowledge-based economy but now it is time to transform it into a human-centered economy.”

What is our main aim? To maintain the status quo or to be a change maker? We need a paradigm shift in education. We need to change how we learn, earn and care (Zahidi, 2017).

How we can make humanity healthier, happier, cleaner, cleverer, freer and more peaceful than even before is a very difficult question and can have multiple answers. But it can be seen that we need a paradigm shift. We need to place humans at the center of theories.

The Black Swan argument of Taleb (which means low probability but big impact events) shows us that it is better to stop trying to predict everything and take advantage of uncertainty.

As Alec Bourne expressed nicely, “It is possible to store the mind with a million facts and still be entirely uneducated”. To live without certainty, deal with complexity and uncertainties, learning and benefiting from our mistakes is of vital importance.

As Franz Hieronymus expressed, “education is not the transmission of knowledge and ideas. It is the training to make use of information and ideas”.

We need to leave “outcome-irrelevant learning” situations. People draw whatever lessons they want from history and are reluctant to change their minds in response to new evidence (Tetlock, 2013). To transform our education system, topics such as “decision-making under uncertainty”, our cognitive biases, irrationalities, the limits of statistics and mathematical models, how to turn knowledge into decisions must be the dominant content of curricula.

To make people healthier and wealthier, to encounter the current global threats, researchers should develop novel ways to solve real world problems—environmental problems, economic problems, social problems including migration, health problems and development problems of countries. No country today is prepared to pay bills that will be due in the near future.

The global economy has evolved from a material-based economy into a knowledge-based economy but now it is time to transform it into a human-centered economy. The problems of today’s post-normal times require a radical paradigm shift in the formulation of most policies, including education.

As Charles Darwin expressed, “It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change”.

We are living in the same small world and we must know that “there will be only one future for all of us, or none at all”.

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Bibliography

1. Abulof, U. (2015). The Malpractice of “Rationality” in International Relations, *Rationality and Society*, 27(3).
2. Banerjee, S., Ercetin, S.S and Tekin, A. (eds.). (2014). *Understanding Complex Systems–Chaos Theory in Politics*, Springer Netherlands.
3. Bhatt, D. (2017). What is the etymological meaning of education?, <https://www.quora.com/What-is-the-etymological-meaning-of-education>
4. Bounded Rationality. (2017). <http://www.businessdictionary.com/definition/bounded-rationality.html>
5. Capra, F and Luisi, P.L. (2014). *The Systems View of Life, A Unifying Vision*, Cambridge University Press, UK.
6. Chou, T. (2017). Without The Humanities Great Tech Cannot Exist. Here’s Why, *World Economic Forum*, <https://www.weforum.org> (10 July 2017).
7. Chuan, T.C. (2015). *Mapping the Future: The Future of Education*, World Economic Forum Reports, <http://reports.weforum.org/outlook-global-agenda-2015/future-agenda/mapping-the-future-the-future-of-education/>
8. De Greene, K.B. (2004). Field-Theoretic Framework for the Interpretation of the Evolution, Instability, Structural Change, and Management of Complex Systems, in (eds. Kiel, L.D and Elliott, E). *Chaos Theory in the Social Sciences, Foundations and Applications*, The University of Michigan Press.
9. Dennett, D.C. (2014). *Intuition Pumps, and other Tools for Thinking*, Penguin Books, UK.
10. Elliott, E and Kiel, L.D. (2004). Introduction. in (eds. Kiel, L.D and Elliott, E). *Chaos Theory in the Social Sciences, Foundations and Applications*, The University of Michigan Press.
11. Eurostat, Glossary: Education. (2017). <http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Education>
12. Feldman, D.P.(2012). *Chaos and Fractals: An Elementary Introduction*, Oxford University Press.
13. Funtowicz, S.O and Ravetz, J.R. (1994). Uncertainty, Complexity and Post-Normal Science, *Environmental Toxicology and Chemistry*, Vol. 13.No.12, pp.1881-1885.
14. Funtowicz, S and Ravetz, J. (2003). Post-Normal Science, International Society for Ecological Economics, *Internet Encyclopedia of Ecological Economics*.
15. Gore, A. (2014). *The Future*, WH Allen, UK.
16. Harari, Y.N. (2016). *Homo Deus, A Brief History of Tomorrow*, Harvill Secker, Penguin Random House, UK.
17. Hart, K., Laville. J. and Cattani. A.D.(2010), (eds). *The Human Economy*, Polity Press.
18. Kahneman, D.(2012). *Thinking, Fast and Slow*, Penguin Books.
19. Kaufman, P. (2012). The Rationality of Irrationality, *Everyday Sociology Blog*. <http://www.everydaysociologyblog.com/2012/09/the-rationality-of-irrationality.html>
20. Kochenderfer, M.J. (2015). *Decision Making Under Uncertainty: Theory and Application* (MIT Lincoln Laboratory Series) Hardcover, July 17, 2015.
21. McDonaldization.com-What Is It? (2017), <http://www.mcdonaldization.com/whatisit.shtml> September 2017
22. Milojevic, I. (2005). *Educational Futures, Dominant and Contesting Visions*, Routledge, New York.
23. Orrell, D. (2012). *Economyths*, Icon Books, UK.
24. Rationality. (2017). <http://www.businessdictionary.com/definition/rationality.html>
25. Roberts, J.M. (1997). *History of the World*, Penguin Books, England.
26. Russell, B. (2010). *Education and the Social Order*. Routledge Classics, Routledge, UK.
27. Seidman, D. (2014). From the Knowledge Economy to the Human Economy, *Harvard Business Review*, November 12, 2014, <https://hbr.org/2014/11/from-the-knowledge-economy-to-the-human-economy>
28. Sardar, Z.(2010). Welcome to Postnormal Times, *Futures*, 42, 5 June 2010.

29. Snowden, D.J. and Boone, M.E. (2007). A Leader's Framework for Decision Making, *Harvard Business Review*, November 2007 Issue.
30. Taleb, N. (2012). *Antifragile, How to Live in a World We Don't Understand*, Allen Lane, Penguin Books Ltd, London.
31. Thaler, R.H. (2015). *Misbehaving, the Making of Behavioral Economics*, W.W. Norton & Company, Inc, New York.
32. Thaler, R.H. and Sunstein, C.R. (2009). *Nudge, Improving Decisions about Health, Wealth and Happiness*, Penguin Books, UK.
33. *The Human Capital Report 2016*. (2016), World Economic Forum, http://www3.weforum.org/docs/HCR2016_Main_Report.pdf
34. Tetlock, P. (2013). How to Win at Forecasting, In Brockman, J. (Ed.), *Thinking, The New Science of Decision-Making, Problem Solving, and Prediction*, Harper Collins, New York.
35. Universities UK. (2015). *Student Mental Wellbeing in Higher Education*, Good Practice Guide, Universities UK, London, February 2015, <http://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2015/student-mental-wellbeing-in-he.pdf>
36. Watson, P. (2002). *The Modern Mind*. Perennial Edition, New York.
37. Zahidi, S. (2017). We may have less than 5 years to change how we learn, earn and care, *World Economic Forum*, <https://www.weforum.org/agenda/2017/01/realizing-human-potential-skills-jobs-care-work/>
38. Zajda, J. (2009c). Values education in the global culture. In J. Zajda & H. Daun (Eds.), *Global values education: Teaching democracy and peace*. Dordrecht, The Netherlands: Springer.
39. Zakaria, F. (2009). *The Post-American World, and the Rise of the Rest*, Penguin Books, England.

Building that Bridge over the Skills Gap

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Abstract

Employers worldwide are seeking and failing to find in new recruits many skills that are critical for success. Skills that enable employees to work as part of a team, communicate effectively, take decisions, lead, adapt to change and solve problems creatively are not often found in fresh graduates. Education does not impart these skills as efficiently as it does academic knowledge and subject-specific skills. A change in the pedagogy and content of education is required to bridge the increasing skills gap we face today. The World University Consortium has identified themes that must be part of our future education, and this article highlights methods and strategies that can implement these ideas.

1. The Glaring Skills Gap

Education may not be the magic formula for solving many of our problems, but it comes a close second. Education raises the employment rate and average income of people and societies. It reduces poverty and fosters economic growth. Indirectly, it promotes health, reduces fertility rates, closes the gender gap, increases awareness of climate change and sustainability, and fosters democracy and peace.*

Almost every country has compulsory, free primary education. We have come to believe in the value of education so thoroughly that a young girl in rural Pakistan stands up for her right to education in the face of threat of violence, and the world awards her the Nobel Peace Prize in recognition of her stance. For 15 years since 2000, the United Nations' Millennium Development Goals inspired countries to invest in their future by raising the quality and quantity of education. As a result, the number of children out of school the world over dropped by half. The Sustainable Development Goals that have succeeded the MDGs aim to ensure free, equitable and quality primary and secondary education for all by 2030. The SDGs also seek to provide access to technical, vocational and tertiary education for all.

Schools and colleges, on their part, provide students with the essence of all the knowledge humanity possesses. They take the sum of all human experience over centuries, abridge and organize it, and provide it to every student over a twelve to sixteen year period, so that each generation can start off with all that every previous generation knew or discovered. Today, we have more schools, colleges, books, research papers and graduates than ever before. Global literacy rate has grown from 12% two hundred years ago to 56% in 1980 to 86% in

* <http://www.globalpartnership.org/education/the-benefits-of-education>

2015. From teaching a few subjects such as Latin, rhetoric and logic, universities today offer specialization in over a thousand disciplines and subdisciplines. The potential of Information and Communications Technology, combined with the perceived threat of Massive Open Online Courses, induces educational institutions to reinvent themselves and provide students with the best learning experience possible.

However, employers are not finding what they seek in graduates. 40% of global employers report talent shortages according to Manpower Group's 2016-2017 Talent Shortage Survey.*

2. Changing Landscape of Work

American inventor, futurist and author Ray Kurzweil said in 2001 that “we won't experience 100 years of progress in the 21st century—it will be more like 20,000 years of progress.” 17 years into the century, all indications are in line with Kurzweil's prediction. We see it in the speed of change and the appearance of a variety of new trends in work and the workspace.

2.1. Technological Advancement and the Need for Lifelong Learning

According to *The Emerging Future*†, technology will advance a thousand times in ten years, a million times in twenty, and up to a quadrillion times more in fifty years. Understandably, graduates believe that the rapid rate of technological and digital advancement is the single greatest challenge in their future careers. A global study conducted by CEMS‡, an alliance of business schools, multinational companies and NGOs, showed that 68% of students and fresh graduates surveyed feel the need to constantly reinvent themselves to stay ahead of the curve.¹ In the Indian technology industry that employs nearly four million people and has revenues of more than \$150 billion, up to three million new positions will be added by 2025. But it would require retraining 60% of the existing workforce.

2.2. Automation

Worldwide, automation and disruptive technology threaten to replace up to 47% of all jobs in the next 25 years. According to researchers at the Future of Humanity Institute at the University of Oxford,² Artificial Intelligence will outperform humans in many activities in ten years. AI will translate languages better than us (by 2024), write school-level essays (by 2026), drive a truck (by 2027), work in retail (by 2031), write a bestselling book (by 2049), and work as a surgeon (by 2053). There is a 50% chance of AI outperforming humans in all tasks in 45 years, and of automating all human jobs in 120 years.

We already see the impact of innovative disruption repainting the landscape. Take for example online ticket booking. Between 1990 and 2014, according to the US Bureau of Labor Statistics, the number of travel agents in the US fell from 132,000 to 74,000. By 2024, the number is expected to decline by another 12%. In 2011, one of UK's largest tour operators

* <http://manpowergroup.com/talent-shortage-2016>

† <http://theemergingfuture.com/speed-technological-advancement.htm>

‡ <http://www.cems.org/>

Thomas Cook faced a cash crisis that threatened its survival and needed a £200m loan. Since then, it has closed hundreds of stores. Another industry, the small component manufacturers and distributors group, is threatened by 3D printers. Bosch Rexroth, the drive and control unit of the private German electronics group, projects that up to 40% of the equipment it uses could be printed instead of purchased in just 5-10 years. This also makes economic sense, equipment manufacturing could become up to 60% cheaper than conventional methods that are now used. Another group of workers, the financial advisers, are facing competition from websites. Since 2012, investors have discovered a free or low-cost alternative in websites that recommend a portfolio of funds to invest in based on the investor's answers to an online questionnaire. Even banks and financial companies recognize the potential of robo-advice and have their own online investment websites. According to Citigroup, the assets managed by these robo-advisers could reach \$5tn globally during the next decade.³

2.3. New Job Descriptions

As it wipes out old jobs and renders some skills unnecessary, this sea change is also creating new careers that demand new skills. The growth in the electric vehicle market threatens the car repair industry. Whereas an internal combustion engine in a car today has several thousand moving parts within it, an electric Tesla car contains 18 moving pieces. Volkswagen aims to make a quarter of its cars electric by 2025, and so needs to retrain 7,000 engineers in electric technology. As more drivers switch to cleaner, cheaper, low-maintenance electric cars, garages and mechanics dependent on servicing and fixing petrol or diesel cars are set to see their business dwindle. But the new cars will come with their own set of needs. Currently, there are 40,000 car after-sales businesses in the UK alone. If these are to change from servicing petrol and diesel cars to battery-operated cars, they will need different expertise.

Of those existing jobs that are not disappearing, many are undergoing transformation that demands a matching change from the people involved in them. Technology-based transport services such as Uber, hospitality service providers like Airbnb, and online sellers like Amazon are forcing traditional businesses to take a relook at their business models.

Starting in the 15th century, the Age of Exploration introduced people to new ideas, beliefs and cultures. It brought to different parts of the world plants, animals, art, technology and practices from other parts of the world. It changed human and social life more rapidly and drastically like nothing before had done. Imagine a virtual age of exploration where a thousand Columbuses and Magellans chart new routes and find unmapped territory in thousands of new dimensions. The factors driving change are numerous and constantly expanding—driverless cars, delivery through drones, online learning, social media, interplanetary travel, the sustainability question, the internet of everything, smart whatnots...!

2.4. Unemployment

Alongside new and exciting developments, unemployment continues to be a major challenge. According to the ILO,⁴ there were 197.6 million unemployed in 2016. This number is expected to rise by 3.4 million in 2017, representing 5.8% of the work force. 2018 will

see an additional 2.7 million unemployed globally. Salaried employment accounts only for about half of global employment. The others are in unconventional, informal employment, with short-term contracts and irregular hours. Even among the salaried workers, fewer than 45% are employed on a full-time permanent basis. 1.4 billion people worldwide remain in vulnerable employment. These are jobs of poor quality, precarious and with limited access to contributory social protection schemes.

2.5. Gig Economy

Another important trend we witness in the job market is the informalization of employment. Part-time and multiple-jobs and self-employment are on the rise. The McKinsey Global Institute estimates that “independent workers”—part-timers, freelancers and those holding multiple jobs—formed 20 to 30% of all employed people in the U.S. and Europe in 2015. The advantages of such employment are the potential to work flexible hours that best suit one’s schedule, the freedom to pick and choose which jobs to pursue, and the ability to determine one’s own interests and strengths before settling down to a career, if one chooses to do so at any point. According to Dan Schawbel, author and research director at executive development firm Future Workplace, by 2020, about 40% of Americans will be part of the gig economy.⁵

2.6. Flexibility

The phenomenon of working from home and outside the office is tied to the gig economy workers. Such an option is beneficial to both sides. Employees can choose their place and time of work. Organizations can cut indirect costs by limiting travel—about a \$100 million annual expense for a \$10 billion American company—and reducing office space. The practice contributes to going green. In the US alone, annual fuel consumption decreased by 680 million gallons in 2013 alone, about 0.5 percent of the nation’s gas consumption. As collaborative technology becomes more reliable, inexpensive and easier to use,* and social media provides an alternative for human interaction, more and more companies are replacing physical meetings with remote technologies.

An online survey of 3000 Generation Y-ers, those born between 1979 and 1997 who form a large majority of the labour force, regarding their work preferences showed that 56% want to work flexibly, 79% prefer to be mobile rather than static workers, and 96% want an environmentally friendly workplace, an issue earlier generations of workers were not so overwhelmingly concerned about. Studies show youth today prefer multi-tasking, working from non-traditional settings such as cafes and lounge environments as opposed to traditional cubicles and office spaces. They seek more autonomy and flexibility. In a Deloitte study† of 1400 CFOs in 2009, 46% said that telecommuting is second only to salary as the best way to attract top talent. 33% responded that telecommuting is the top draw! The need for flexibility is a result of not only a change in the mindset but also a practical need. With organizations becoming increasingly globally distributed, employees find themselves collaborating in real

* Knoll Workplace Research’s Five Trends that Are Dramatically Changing Work and the Workplace https://www.knoll.com/document/1352940439324/WP_FiveTrends.pdf

† Why Change Now: Preparing for the Workplace of Tomorrow, Deloitte Development, 2009, p.3.

time with people in multiple time zones. Regular 9 to 5 office hours are no longer adequate, with online meetings spilling into early morning, evening or late night hours.

“The growing complexity of the work place and the uncertainty of the world around require in every individual a well-formed individuality.”

Among the next generation, the Millennials, 68% of job seekers say an option to work remotely would greatly increase their interest in the employers, according to a survey by AfterCollege*, a career network for students and recent graduates. Gallup’s State of the American Workplace report† finds that 43% of Americans worked remotely part of the time in 2016, up from 39% in 2012. According to the 2015 PGI Global Telework Survey, 79% of the respondents work from home at least one day a week.‡ In a 2014 survey of business leaders at the Global Leadership Summit§ in London, 34% said more than half their company’s workforce would be working remotely by 2020. 25% said more than three-quarters would do so by then.

2.7. The Entrepreneurial Mindset

Entrepreneurialism is growing among Generation Y and the Millennials, as if keeping pace with advancement in technology. There is a connection. Every generation has sought freedom and the ability to work for who, when, where they want, and balance their personal lives with their professional lives. And every generation has come closer to doing it, but due to the advancing communication technology, mobile computing and collaboration tools, it is today’s workforce that is achieving it. A study by oDesk¶ found that today 90% of people think that entrepreneurship is only a mindset, which all can develop. As for actual plans, GoDaddy** finds that 21% of Baby Boomers, 47% of Gen X-ers and 62% of all those who have come after intend to start their own business before 2026. Flexibility is the chief driver of entrepreneurship. 41% of the respondents say it is this option that motivates them to strike out independently, only 17% of the people are influenced by the possibility of making more money.

According to Dr. Marie Puybaraud, Director of Global Workplace Innovation for Johnson Controls, the youth entering the workforce today are, “on the leading edge of transformational attitudes towards work and the workplace ... because they have grown up with the Internet and mobile communications and are digitally, globally and constantly connected. They are driving how mobile communication technologies are used, and they are setting behavioural trends that ripple and influence social behaviour in other generations.” But the paradox is, this

* <https://www.aftercollege.com/cf/2015-annual-survey>

† <http://www.gallup.com/reports/199961/state-american-workplace-report-2017.aspx>

‡ <http://go.pgi.com/gen-genspec-15telesur-SC1129>

§ <https://gls.london.edu/>

¶ Millennials and the Future of Work <https://www.upwork.com/blog/2013/05/odesk-announces-new-study-on-millennials-and-the-future-of-work/>

** GoDaddy Global Entrepreneur Survey: A new era of the entrepreneur, September 20, 2016, <https://www.godaddy.com/garage/godaddy/godaddy-global-entrepreneur-survey-2016-new-era-entrepreneur/>

generation is largely being taught by those who are on an average, not at home on the internet and social media. These teachers studied at a time when information was primarily found in text books and encyclopaedias. Education had been tied to physical spaces such as the classroom, laboratory and library. Their own teachers had been the authority of knowledge. And the world order, politically, socially, economically and technologically, had been vastly different. In many cases, the paradox continues after graduation too. These youth will start their careers in the face of reports that a majority of today's students will be in jobs that do not exist yet, that by 2030 two billion jobs that exist today will disappear, and that they may see signs that read "humans need not apply!" Some of these graduates will be employed by, and need to report to those who have been trained for long years in the absence of information overload and massive interconnectivity.

3. Need for a New Paradigm in Education

The growing complexity of the work place and the uncertainty of the world around require in every individual first of all a well-formed individuality. This includes strength, positive values, resilience, and the capacity for leadership, problem solving, adaptation, and innovation. The World University Consortium* has identified a number of themes that are essential for a paradigm shift in education. Realigning future education along these themes will not only bridge the skills gap that exists today, but also anticipate and prepare our young work force for any situation that they find themselves in in the future.

4. Teamwork and Collaborative Learning

One of the top recruiters of entry-level college graduates in the US is the car rental company Enterprise Rent-A-Car. This company hires a number of college athletes. These new recruits are not intended for any sports-related positions. They are hired because sportspeople, better than most others, know how to work in teams. And the company values the capacity for teamwork in an employee. He/she may be a graduate of mechanical engineering, business administration, classical literature or medieval history. The technical knowledge required to work in the car rental industry can be taught and learnt in a few months. But the ability to work in teams is far more valuable than technical knowledge. It ensures effective communication between people, harmonious relationships between teams, and a smooth work flow throughout the project. It ensures that the collective goal becomes greater than individual recognition. In short, it determines the success of the company itself.

The ability to work in a team is the number one requirement of employers, finds the Job Outlook 2016 survey, conducted by US-based National Association of Colleges and Employers†. This is in startling contrast to the number one requirement in most educational institutions—good individual performance. Students are required to listen to the teacher, take notes, study, complete homework, submit assignments, and finally write an exam—all by him/herself. A group project is an occasional occurrence and not part of the daily routine in

* www.wunicon.org

† Job Outlook 2016, <http://www.nacweb.org/career-development/trends-and-predictions/job-outlook-2016-attributes-employers-want-to-see-on-new-college-graduates-resumes/>

a typical school setting. When the greater part of the educational training we give students is devoid of collaboration, it is not a surprise that the ability to work in a team is one of the most sought after but hard to find skills in graduates.

“Communication skills are not like manual or technical skills that involve only one part of the person. They are the result of the integration of linguistic, intellectual and emotional capabilities, i.e. they reflect the overall development of personality.”

In the early 1990s, business people of the city of Napa, California were unhappy. They were not getting workers with the right qualities. The schools were not producing graduates with the skills needed in the work place. Why not grow our own employees, they asked, and a collaboration between the business community and the educators of the school district was formed. They started looking for a way to prepare students better for work and life, and they realized that a school environment that trains students from childhood onwards to collaborate rather than compete is needed. Out of their concerns and inspiration was born the New Technology High School* in Napa.

The school employs a model that educates the student as a whole, imparting not only academic knowledge but life skills. A culture of respect, trust and responsibility is inculcated in the students. When a decision needs to be taken by the school, the students are consulted too. Students are given the freedom to organize their own projects, and work in groups of their own choice. The curriculum is project-based rather than book-based. The teacher leads the activities in the classroom, rather than lecturing to the class. One of the criteria on which students are graded is their work ethic. Communication is considered important, even in a subject such as Maths. Boldly breaking away from the traditional method of encouraging children to compete with others and come first, they are required to work in mutual cooperation, as they would later at work. This practice lets students see the benefit of replacing competition with cooperation, and instils the habit as part of their culture.

After the success of the school, the New Tech Network was formed, to replicate the successful model elsewhere. This network is one of the fastest growing school networks, and is working with nearly 200 districts and schools worldwide to transform schools into innovative learning environments. Many such successful, visionary models exist all over the world. We need to identify and recognize these and take steps to replicate them.

5. Social Skills and Active Learning

In all human history, we have never been so well connected before. Fiber optic cable, satellite communication, instant messaging, smartphones, social networking and numerous apps that add all possible frills to the business of messaging have left us linked, followed,

* <http://www.newtechhigh.org/>

liked, commented on, retweeted, sometimes even made viral! We are used to receiving instant news as events unfold, watching wars telecast live from the battlefield, seeing sports from every angle using cameras on drones, and participating in global real-time discussion online. We also see more and more people, especially the young, post their personal lives publically on social media, fingers constantly, rapidly texting on their gadgets. But paradoxically, young graduates are found lacking in communication skills. They are unable to listen, understand, give instructions or effectively communicate orally or in writing. This impediment adversely affects work productivity. Aggregating reports of numerous surveys, the University of Kent Careers and Employability Service* concludes that communication skills are one of the top skills that employers want in new recruits.

Communication skills are not like manual or technical skills that involve only one part of the person. They are the result of the integration of linguistic, intellectual and emotional capabilities, i.e. they reflect the overall development of personality. Listening to a teacher's lecture, studying, submitting assignments and writing exams that test one's subject knowledge hardly improve communication skills. Active learning, peer tutoring and project-based learning help improve communication skills. This is one expression of a person-centered approach to education that shifts emphasis from the subject to development of the skills, capacities and personality of the students.

6. A Global Exposure from Online Learning

Online education, Massive Open Online Courses, badges and newer forms of accreditation and evaluation are the only way to simultaneously rapidly increase accessibility, affordability and quality of higher education at the global level. The idea of distance education is not new, but advances in ICT make it possible to do much more than has been ever done before. Schools and colleges can supplement their classes with the best lectures available anywhere in the world. Regions that suffer from shortage of teachers can now gain access to the teachers in the top most colleges. Scaling up an online class of 30 to a class of 30 million or more is possible. Syllabi can be updated constantly, the latest in every field can be taught. Students have an extensive range of subjects they can study. They can learn from the university or lecturer of their choice. Online forums and webcasts allow interaction and peer learning at the global level. Online education is not without major hurdles and fierce opponents, but its advantages outweigh the limitations of the field.

Apart from knowledge, learning in a virtual global classroom offers one a wider perspective than is possible otherwise. This is essential in today's global work space. Employers are increasingly finding global perspective a much-needed skill in workers. Massive interconnectivity makes it imperative for everyone to know and be sensitive about regional differences. Needs, perspectives, problems and cultural conditions vary from region to region. One needs skills to comprehend and factor in these complexities in order to succeed in the global environment. Online education, apart from providing students with the best of knowledge that is available anywhere in the world, also gives these skills. When one learns from a lecturer say half way around the world, and has as his/her classmates people of all age

* <https://www.kent.ac.uk/careers/sk/top-ten-skills.htm>

groups, backgrounds and professions in tens of other countries, and interacts with them, receives feedback from them, reviews their work, and learns from the process, one enters the workforce with a much-needed global exposure.

Hybrid learning using the flipped classroom model takes advantage of both online and the classroom model. It makes the best use of the high quality open resources by combining them with in-person classroom discussion. If more and more schools and colleges invest in the basic infrastructure required to log in to the global classroom, they improve the quality of their own education, educators and their students.

“The cultivation of individuality in every person is the ultimate aim of education.”

7. The CEO Mindset

The speed and complexity present everywhere compel everyone, be he/she a fresh graduate newly recruited or a senior level employee, to think like a CEO. Problem-solving capacity, decision-making skills, values, entrepreneurialism and leadership are required in everyone. Employers today look for the ‘CEO-mindset’ in all.

Manpower Group’s *The Flux Report** states that leadership skills are seen as the most important skills needed for employees in order to drive growth. Similarly, more than 80% of responding employers in the Job Outlook 2016 survey said they look for evidence of leadership skills in recruits. An education that has as its core focus the imparting of facts, even if it goes by the name of information, knowledge, or wisdom, and evaluates its own effectivity by requiring students to write down what they have understood and remembered, meets, as Sir Ken Robinson famously said in his TED talk†, only the needs of industrialism.

The CEO-mindset does not come from understanding and remembering facts alone. We need a workforce that does not wait for instructions. We can no longer afford to be taken by surprise by unexpected changes. We need people who, if they cannot anticipate changes, are at least always expecting them and are ready for them, even if they don’t know what those changes will be. Those who can adapt and evolve continuously. Reid Hoffman, Executive Chairman of LinkedIn, described entrepreneurship as being able to jump off a cliff, and build a plane on the way down. It is such people who are needed, whether they work for themselves or for another. People who can direct change. Who can create their own jobs. Who can convert challenges into opportunities. The one term that captures all these qualities and capabilities is Individuality.

The cultivation of individuality in every person is the ultimate aim of education. An individual who is responsible and self-directed. Individuality is the foundation for original thinking, innovation, creativity, and entrepreneurship. An education that is based on respect for the uniqueness of each student, and strives to awaken the interest and curiosity of the

* Manpower Group’s The Flux Report, <http://www.rightmanagement.co.uk/thought-leadership/research/the-flux-report-building-a-resilient-workforce-in-the-face-of-flux.pdf>

† <https://www.youtube.com/watch?v=iG9CE55wbTY>

student to learn. According to the American psychologist Carl Rogers, the fully functioning person develops as a result of self-discovered learning. This ideal is achieved not by passive attendance of lectures. A broader view of education is required, one that shifts from traditional lectures to active, student-centered, self-paced, collaborative methods of learning. The teacher no longer shapes or moulds the student. He/she recognizes the individual differences in interests and talents among students, and lets them develop according to the laws of their own nature. Their inner capacities are allowed to develop to their fullest extent. Such individuals, those with the much sought after CEO-mindset, take decisions based on their own standards rather than be influenced by others' opinions or conform to social norms. They take responsibility for their own actions. Their individuality enables them to identify with the larger society, they have a positive relationship with it and act in a manner that is conducive to its progress.

“An educational program that is flexible and personalized instead of being an assembly line creates unique individuals. A world that celebrates uniqueness (not simply rebelliousness for the sake of non-conformity) nurtures creativity.”

8. Creativity

Besides individuality, if there is one other quality that is critical for the future, of education and everything else besides, it is creativity. We do not know what jobs will disappear, what new ones will appear. We do not know what new fields of study will be offered, what changes will be brought about in the job market and the work place. We do not know if governments, nations and existing organizations will look the same. What climate change, rising sea levels and depleting natural resources will have done to our ecosystem. What the next revolution will be. How population will grow, and societies will function. How much reality will resemble the science fiction of today, or be a throwback to the past. In such a fluid scenario, it is not a degree in a subject nor a doctorate that one needs. At most, the certificate may enable one to survive. But to utilize the opportunities that are made possible by changes and new developments, to thrive and grow, what everyone will need is creativity.

IBM asked 1500 CEOs from 60 countries across 33 industries what they consider the most crucial factor for future success, in its 2010 Global CEO Study*. The number one answer received was creativity. Creativity, somewhat like love or infinity, rightly defies any definition. George Bernard Shaw describes his creativity thus: “You see things; and you say, ‘Why?’ But I dream things that never were; and I say, ‘Why not?’” So, we need children to say, why not, and continue saying so always. More than fulfilling an aesthetic need, creativity is critically needed for the future we cannot predict. We need to teach students how to learn. This way, we equip them to adapt, learn and continuously evolve.

* <https://www-03.ibm.com/press/us/en/pressrelease/31670.wss>

According to Mara Swan, Executive Vice President, Global Strategy and Talent, Manpower Group, employability depends less on what you already know and more on how well you can learn, apply and adapt. Business and life are complex and integrated and becoming increasingly so. They do not lend themselves to understanding or effective action based on compartmentalized, fragmented, piecemeal analysis and initiative. An education that is transdisciplinary, contextual and relevant to every individual student makes most meaning to all, and instils a love for learning and curiosity to know. A system that encourages, not punishes mistakes, allows one to experiment and innovate. An educational program that is flexible and personalized instead of being an assembly line creates unique individuals. A world that celebrates uniqueness (not simply rebelliousness for the sake of non-conformity) nurtures creativity.

These creative people invite disruptive innovation, and even encourage others to think freshly, none less than Albert Einstein said creativity is contagious. Creative students and workers are comfortable with ambiguity and experimentation. They think independently and laterally, and challenge conventions and assumptions. They are courageous to make decisions that challenge the status quo.

Human creativity is an inexhaustible spring from which new ideas, social innovations and material progress emerge endlessly. We are inherently creative. Unfortunately, some of our educational institutions stifle creativity in favour of standardized, conformist behaviour. Creativity must be a learning objective in the academic curriculum. Educators need to exhibit an open attitude, free of preconceived ideas. They need to suspend all judgement and encourage questions from students. This will create a positive, secure learning environment that is inspiring, stimulating and supportive of creativity.

Just the two values, individuality and creativity, between them have the potential to create, at the personal and collective level, a workforce that can confidently face the future, even create the future as we would like it. Incidentally, the skills gap will also be bridged.

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Notes

1. Nick Morrison, "Rapid Technological Change Is The Biggest Threat To Global Business" *Forbes* February 9, 2017 <https://www.forbes.com/sites/nickmorrison/2017/02/09/donald-trump-is-not-the-biggest-threat-to-global-business/#7883d20b1b73>
2. Katja Grace et al., "When Will AI Exceed Human Performance? Evidence from AI Experts," *ArXiv* (2017):1-21 <https://arxiv.org/abs/1705.08807>
3. "Five industries under threat from technology" *Financial Times* December 26, 2016 <https://www.ft.com/content/b25e0e62-c6ca-11e6-9043-7e34c07b46ef>
4. *World Employment and Social Outlook: Trends 2017* (Geneva: International Labor Organization, 2017) http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_541211.pdf
5. James Manyika et al., *Independent work: Choice, necessity, and the gig economy* (New York: McKinsey Global Institute, 2016) <http://www.mckinsey.com/~media/McKinsey/Global%20Themes/Employment%20and%20Growth/Independent%20work%20Choice%20necessity%20and%20the%20gig%20economy/Independent-Work-Choice-necessity-and-the-gig-economy-Full-report.ashx>

Social Democratic Constitutionalism, New Economic Theory, and the Dangers of Neoliberalism's Attacks on Rational Government Regulation

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Abstract

This paper examines the foundations of economic neoliberalism and underlines the implications of the foundations of this economic theory in its reliance on economic value as ownership, property, and commodity which misdirects economic inquiry from the real value of human capital as the proper foundation of a viable economic system. It focuses on the role of a selective emphasis on rules of international law for the protection of private property. These rules indirectly influence economic theory in general in the sense that commodity is made to be near absolute, and to be insulated from regulation. The paper explores these ideas in the context of major neoliberal theorists and stresses flaws of the theory of ownership as well as the flaws in the myth of the market as a form of economic activity immune to rational regulation. The paper goes on to stress the emphasis of the destruction of the so called "deep state." The attack on the deep state is reinforced by an academic interest group loosely styled "The Law and Economics Movement." The paper emphasizes the politico economic costs of the the demolition of the so called deep state, which is essentially a social democratic state. One of the consequences of this form of economic advocacy is the possibility of rule by plutocracy. This will mean the destruction of the constitutional foundations of the state. The paper also underlines an important aspect of the jurisprudence of neoliberalism which is rooted in the theory that law must be done from the point of view of the bad man and be completely separated from basic morality and values. This is applied to economic theory and makes for a sharp chasm and basic human rights values. There is clearly a need for more effective forms of interest representation representing the vital importance of human capital.

1. Introduction

At the present time, we live in a culture dominated by the forces of globalization.

The emphasis of globalization in the political and economic sphere has been highly contested and ideologically driven by conflicts of global theoretical and practical political-economic dimensions.

In the economic sphere, the conflict of global economic priority is focused on the United Nations, which emphasized the idea of a new international economic order. This was opposed by the re-emergence of an economic theory founded on market fundamentalism, efficiency and the primacy of private property holdings sustained by natural law and a weakened form of state control. This emphasis emerged as the economic theory of contemporary neoliberalism. It is currently the dominating economic paradigm from a global point of view. It aspires to be the new normal of global economic organization.

Economic globalization today is, in effect, a reinvention of laissez-faire economics that was fashionable in the 19th century. After the Great Depression and consequences of the failings of the market system, which led to massive inequality, unlivable cities, pollution and decay, these policies were largely rejected by many industrializing societies. The laissez-faire advocates claimed that markets were self-regulating and, after sometime, prosperity would resume. According to Keynes, markets are not self-regulating and in the time frame of the fundamental market protagonist we would all be dead.

Neoliberalism radically emphasizes the primacy of private property and market efficiency in opposition to state regulation of the economy. The new international economic order and its derivatives in the form of new economic theory focus on the centrality and importance of human capital as a starting point for a realistic and socially responsible economic theory.

The ascendance of economic neoliberalism has been generated by organized political forces using academic positions as bases of power to promote the values behind economic neoliberalism. This includes a powerful aggregation of academic economist-lawyers whose self-identification is “the Law and Economics Movement”. The important gloss that they bring to economic, political and legal theory is that they are deeply committed to the abolition of most of the regulatory foundations of the social democratic form of American government. Their particular skill has been to unpack what they believe to be the cost of regulation, and then construe this as a form of the taking of economic interests of the holders of private property affected by regulation. The broader consequences of their success result in the transfer of economic power from the public interest of the state to the private interest of private parties. In short, their attack on regulation and the weakening of public interest power does not mean that the aggregate power is diminished.

On the contrary, it is simply transferred from some form of public accountability to a significant interest in non-accountability by the private sector. Economic neoliberalism cannot provide an effective framework for managing power if the social democratic constitution is extinguished. This group of academics represents powerful interest articulation, backed by a cascade of academic commentary, which often does not invite critical appraisal. When confronted with critical appraisal, they tend to collectively ignore it.

Alongside the “Law and Economics Movement” is a society of conservative legal practitioners and judges, organized into the so-called federalist society. They provide added punch to the academic apologists but are more explicit in their call for the destruction of

the New Deal state, essentially, the destruction of the social democratic constitution of the modern era. If we destroy the New Deal state, we are left essentially with the rule by, of and for the plutocracy. This is a dangerous course to take. There is no evidence that these extreme views are subject to some measure of moderation. It can be concluded here that the extreme form of economic neoliberalism may well represent the most profound threat to the survival of American democracy and its rule of law foundations.

2. The Political Economy of Neoliberalism

Neoliberalism has its foundations in classical economic theory with a focus on value, property, market, supply and demand, and efficiency. Modern neoliberalism emerged from a meeting organized in Mont Pèlerin, Switzerland, which included major intellectuals from the UK, the USA, and Austria. These intellectuals were concerned about the emerging socialist-Stalinist form of command control economics. The Stalinist approach stressed the extinction of private property and the monopoly and legitimacy of state control over the economy and the means of production.

These intellectuals saw the extinction of private property as coextensive with the extinction of freedom. This included economic and political freedom.

In their view, the solution to economic theory was a radically reduced role for the state in the regulation of economic affairs and a restricted role focused principally on the protection of private property. This included the importance of private property and efficiency in market exchanges and therefore also stressed an extremely minimal role for the state in regulating the market. In short, “the market functions best when left to the practices that facilitate unregulated market transactions and events.” One of the tenets of neoliberalism is that it aspires to make private property vested with the attributes of “private sector sovereign capabilities.” This serves as a partial barrier to public sovereign regulation, which neoliberalism considers to be a form of creeping expropriation of vested private property. Additionally, it is argued that such purported takings must be fully compensated by the public sector represented by the public interest.

This is a matter that became a central ideological focus of the UK under Thatcher and the USA under Reagan. At the intellectual level, neoliberalism was the spearhead of the work of Milton Friedman (*Capitalism and Freedom*)¹ and the Department of Economics at the University of Chicago.

3. Private Sector Attacks Versus Public Sovereign Regulation in the International Context

These issues emerge in the documentary foundations of modern international law.

The initial emphasis of this approach was reflected in the scale and scope of global decolonization. Since colonial economic interests controlled and regulated the vast resources of newly decolonized states, these states were confronted with the problem of neocolonialism.²

This meant they had formal freedom politically, but their economies were still under colonial control; colonial control often came in the form of transnational business enterprises.

The response to this is explained in several sequential documents emerging from the General Assembly of the UN. The following are included as illustration: United Nations General Assembly Resolution 1803 on Permanent Sovereignty over Natural Resources (1962); Convention on the Settlement of Investment Disputes Between States and Nationals of Other States (1965); The United Nations Declaration on the Right to Development (1966); United Nations General Assembly Resolution 3171 on Permanent Sovereignty over Natural Resources (1973); Programme of Action on the Establishment of a New International Economic Order (1974); Declaration on the Establishment of a New Economic Order (1974); Charter of Economic Rights and Duties of States (1974); Draft Code of Conduct on Transnational Corporations (1988).

The most controversial provision in the Resolution of Permanent Sovereignty involved the sovereign taking of private foreign investment. The Resolution stipulates that the taking should be for a public purpose and the compensation, which may give rise to controversy, shall be measured according to the principle of appropriate compensation and that controversies should in the first instance be resolved according to the law of the taking state.* The appropriate(ness) standard was a significant departure from the approach of traditional international law of capital exporting countries. These countries maintained that expropriation of property is lawful only if the taking is for public purpose, is not discriminatory, and is supported by the principle of full compensation. States from the communist world saw the taking of property as a part of the state's legitimate power over the means of production. The newly decolonized states asserted the right to take foreign owned property subject to just or appropriate compensation, but the term "appropriate" could cover a wide variety of circumstances, including the context of colonial exploitation.

4. The Third World Approach and the Support of International Law

The Charter of Economic Rights and Duties of States, which had the support of decolonized states, declares a right in each state, "to nationalize, expropriate or to transfer ownership of foreign property, in which case appropriate compensation should be paid by the state adopting such measures, taking into account its relevant laws and regulations and all circumstances that the state considers pertinent. In any case where the question of compensation gives rise to controversy, it shall be settled under the domestic law of the nationalizing state and its tribunals..."†

This relaxed standard regarding takings and compensation caused a fire storm in the capital exporting world. Clearly, the capital exporting states wanted as tough a standard as possible to restrain takings and to ensure maximum compensation. In short, they were reaffirming a near absolutist legal standard for the protection of private property in international law.

* Hyde, James N. "Permanent sovereignty over natural wealth and resources." *American Journal of International Law* 50 (1956): 854.

† Assembly, United Nations General. "Charter of Economic Rights and Duties of States." A/RES/29/3281 – Charter of Economic Rights and Duties of States – UN Documents: Gathering a body of global agreements. <http://www.un-documents.net/a29r3281.htm>.

5. Protection of Private Property in International Law: The Act of State Doctrine

The protection of private investment in the wake of decolonization was considered to be under threat by the emerging approach to the protection of foreign investment in the global environment. From a juridical standpoint, the matter appeared to reach an apex in a leading Supreme Court case, *Banco Nacional de Cuba v. Sabbatino* 376 U.S. 398 (1964).^{*} In this case, Castro's government by state decree in Cuba nationalized parts of the sugar industry. The proceeds of the sale of sugar were present in the New York Bank and the former owners of the sugar interests filed an *in rem* action seizing the proceeds of the sale of sugar and placed it in the hands of a New York trustee, Sabbatino, while they litigated the ownership of the proceeds.

In this case the Supreme Court ruled that since the standard with regard to takings was still a dispute in international law, it was prudent for the court to not intervene. It justified its non-intervention by invoking a sovereignty informed doctrine: The Act of State Doctrine. Under this doctrine, a taking based on the domestic law of the state with regard to property in the state could not be contested in the foreign courts of another state. In effect, Castro kept the proceeds of nationalization. In subsequent cases, without disposing of the Act of State Doctrine, the court radically weakened its scope of applicability. The battle lines were now drawn. Essentially, neoliberals fought tooth and nail to prevent the sovereignty of the state from taking private property, except under rigorous conditions.

The Sabbatino case caused a tornado in the American business community. The business interests prevailed on the U.S. Congress to pass an amendment to the Foreign Assistance Act. One can see this as the neoliberal fight back for the inviolability of property rights. Under the Second Hickenlooper Amendment, it was provided that "No court in the United States shall decline on the ground of the federal act of state doctrine to make a determination on the merits giving effect to principles of international law in a case in which a claim of title or other rights to property is asserted by any party including a foreign state...based upon... a confiscation or other taking after January 1, 1959, by an act of that state in violation of the principles of international law."[†]

The initial implications of the roll back of the Act of State Doctrine led to the emergence of the "Hot" Goods Doctrine, which enlarged the scope of private remedies for protecting private property in international law.[‡] Under this theory, if the taken property or its assets were physically present in another state, the private corporation could file an *in rem* action, seize the property, claim legitimate ownership of the property or its value. The State of Chile had its copper or copper assets seized in this way and nearly brought the Chilean economy to its knees.³

^{*}*Banco Nacional de Cuba v. Sabbatino* 376 U.S. 398 (1964)." *Justia Law*. <https://supreme.justia.com/cases/federal/us/376/398/case.html>.

[†] Legal, Inc. US. "US Legal." Acts of State laws. <https://actsofstatelaws.uslegal.com/the-act-of-state-doctrine-article/>.

[‡] Deines, Brooke. "HOT GOODS AND COLD CASH: Hot Goods Laws, The Joint Employment Doctrine and Retailer Liability Under the Fair Labor Standards Act of 1938." (2006).

Foreign investment now became infused with an international law theory of the inviolability of property rights. Since third-world countries were dependent on foreign investment, they could get foreign investment only under rigorous standards that protected private property for foreign investors. To a large extent, these matters were supplemented by standards set up by the government of the US to secure foreign investment as a condition of foreign investment, and this was supplemented by the practice and procedures of the World Bank and the IMF.

In addition to the Hickenlooper Amendment, a number of exceptions emerged in US practice to further limit the Act of State Doctrine. One of those important interpretations was that the Act of State Doctrine could not be used to block human rights cases. This provides an overview of the little-known (to the economists) factual legal background that solidified the near absolute status of property in the context of global law.

6. Consolidation of Neoliberalism & Law in its Expansion in International Economic Matters

Essentially, the culture of foreign investment and the absolutist idea of private property fell in line with the demands of the global financial community and capital underwritten by the World Bank or the IMF came with stringent conditions that sought to weaken the state's regulatory role.

To give one illustration, an 80 billion dollar loan from the IMF required a massive deregulation of protections of domestic manufacturing and the outflow of capital from South Africa. These regulations seem to contribute to accelerated poverty, inequality and unemployment.* The evolution of ideology behind a non-regulatory state into the ideology that regulations, which impact on foreign investment, may constitute an unlawful taking in international law is illustrated in the case of *Methanex v. The United States* (2002).†

7. The Background to Methanex

The background to this in NAFTA was an explicit commitment of big business to “roll back the New Deal.” The background to this was the *Lochner v. New York* case,‡ decided by the Supreme Court in 1905. The New York law required a 10 hour work day for bakery workers. The *Lochner* case ruled that this regulation deprived the bakery owners of their property rights. The following history of *Lochner* showed the court invalidating over 200 state and federal statutes (income tax, minimum wage laws, health and safety regulations, workers' rights to organize independent unions, etc.).§

In 1937 the composition of the Supreme Court had changed and *Lochner* was overturned. The court supported a constitutional obligation to protect society's health and welfare and

* “Southern Africa: Apartheid Debt.” Southern Africa: Apartheid Debt. July 27, 1998. <http://www.africafocus.org/docs98/debt9807.php>.

† “*Methanex Corp. v. United States of America*.” U.S. Department of State. <https://www.state.gov/s/l/c5818.htm>.

‡ *Lochner v. New York*, 198 U.S. 45, 25 S. Ct. 539, 49 L. Ed. 937 (1905).

§ *Ibid.*

used “police powers” to justify the intrusions into the private sphere. Public necessity came before property rights.

Although *Lochner* was dead, its ghost continued to survive. Recently, the Federalist society organized a law conference on rolling back the New Deal. Epstein, a University of Chicago Law professor, provided a novel interpretation of the Fifth Amendment: “Regulations should be properly understood as ‘takings’ under the Fifth Amendment, so government must pay those businesses or individuals whose property value is in some way diminished by public actions.”* This is a breathtaking interpretation of the protection of property under the Fifth Amendment. The implications are that neoliberalism has near limitless boundaries. More than that, in this sense it is an engine of dynamic political change, the consequences of which could undermine the juridical and economic foundations of social democratic governance and the constitutive process that underpins it.

8. The Methanex Case

People in California began to recognize a foul taste in their drinking water and local authorities had to shut down water supplies and purchase clean water from elsewhere. It was established that the pollution came from MTBE, a methanol based gasoline additive, which creates cleaner burning fuel and reduces pollution. If small amounts of MTBE leak into the water supply, the water becomes unfit to drink and hard to clean. It was determined that the additive was also carcinogenic.

The governor of California made an executive order requiring the phase out of MTBE. A few months after this, a Canadian company filed a 970 million dollar law suit for compensations against California because the regulation inflicted losses on its future profits. They argued that Chapter 11 of the North American Free Trade Agreement (NAFTA) permitted them to sue if their company’s property assets were damaged by laws and regulations of any kind. The proceedings before a NAFTA tribunal are held in secret. It is true NAFTA arbitrators cannot overturn domestic law, but billion-dollar damage awards can chill local lawmaking. This could imply a million dollar consequence of chapter 11 of NAFTA. This vastly expanded the absolutist sense of private property. Although Methanex ultimately lost this case, it was a matter that still has a backing of the multi-national business community. The story here has not ended.

9. Milton Friedman, the Significant Architect of Neoliberalism (*Capitalism and Freedom*)

Friedman was the key right-wing intellectual adversary of Keynesian economics. He theorized that there existed a “natural” rate of unemployment. Friedman promoted an alternative macroeconomic viewpoint known as “monetarism”, and argued that a steady, small expansion of the money supply was the preferred policy. His ideas concerning monetary policy, taxation, privatization and deregulation influenced government policies, especially

* “The Fifth Amendment and Takings of Private Property.” <http://law2.umkc.edu/faculty/projects/ftrials/conlaw/takings.htm>.

during the 1980s.* His influence in economic theory was to radically delegitimize the science of macroeconomics using the methodology of the pure market and market efficiency and monetarism. His monetary theory influenced the Federal Reserve's response to the global financial crisis of 2008.

Friedman's views were echoed in the Reaganomics era when Reagan declared, quite bluntly, that the government was the problem. This introduced a powerful emphasis in federal politics. This was an emphasis that called for reducing taxes on the rich, reducing government expenditures for social and health services, reductions for education, environmental issues. In short, any effective regulatory function of the federal government was a fair target for the total free enterprise movement.

One of Friedman's greatest successes came from the Clinton administration and involved a massive deregulation of the banking industry, that is to say the repeal of the Glass-Steagall act. Financial commentators regard this as a major cause of the 2008 financial crisis. With the repeal of Glass-Steagall came the large-scale financialization of the US economy and those countries connected to the US economy.⁴ Donald Trump has promised to "undo" the laws which were enacted to reinstate Glass-Steagall type regulations.

Even with the reintroduction of the regulatory regime for the banking industry, every element of reform was and remains contested. Fundamentally, neoliberalism and the financialization of the economy supported by the legal foundations of the inviolability of private property provided a powerful economic theory, a powerful economic constituency, and a powerful force of professional apologists.

The fundamentals of Friedman's theory were formed around centrality of private property as a cornerstone of human freedom. In this sense, private property should be juridically protected by a preemptory legal norm that gave it near absolute status along the lines of the *Lochner* case. Private property as a commodity functioned within a market that should so far as possible be immune from state regulation or control. In this sense, the market was so crucial to the exchange of good services and commodities that the implicit assumption that it was self-regulating or that it was regulated by an invisible hand, elevated the status of the market to the status of a protective natural law analogous to the right to property in *Lochner*.

Friedman's views here have been subject to vigorous and coherent assault by many theorists. Many see the notion of the market in Friedman's sense as not an appropriate framework within which to properly understand economic interactions in the real world. The framework is suited to pseudo-scientific academic theorizing far removed from experience. It therefore obscures malfunctions and imperfections that are correctible in the market. Essentially, the market works very well for a focus on academic interests far removed from reality. Consider the following:

*"Publications." Publications - Dallasfed.org. <https://www.dallasfed.org/en/pubs.aspx>. <https://www.federalreserve.gov/Pubs/feds/2011/201126/201126pap.pdf>

“You have to know that academic economists today are not even interested in the real world. In the economic profession today, interest in the real world is an indirect admission that you are not very good. If you are really smart you do really abstract mathematical modeling. If you are a bit less good you do econometrics, basically manipulating statistics. If you are really down in the pits you are interested in the real world...It’s strange academic culture...when you say these uncomfortable things, people refuse to listen to you.”*

Bjorkman unpacks the myth of the market by demonstrating that there is no invisible hand or a self-moving institution of exchange. He demonstrates that the market is first of all not a static social event, but an institution fed by an internal constitutional process which under the influence of decision makers seeks to shape the market in ways that are fair and socially responsible. This view is in stark contrast to the idea that the market is a sort of automated machine.

One of the important outcomes of proper market dynamics is that the market will always generate many alternative and constructive possibilities to improve performance to meet social responsibilities. In short, the market is a man-made and self-organizing system and is guided by its own constitutional foundations. For example, the constitutive rules of the market include the definition of property or corporate rights.

Friedman scores an important point in recognizing that freedom is diminished without reasonable access to property and one of the most important aspects of property is earning capacity. However, earnings from labor, if not supplemented by access to other forms of property, leave the individual incapable of robust participation in a democratic society. During the time of the founding of the United States, access to land provided an important substitute to augment earnings. Today under the neoliberal approach accelerating inequality which produces hardships endured by the least well-off demonstrates that wealth concentration is slanted in favor of the property earning class and not the class which experiences diminishing earnings in the wage labor market.

In a modern capitalist economy, industrial capital is owned by mega corporations. This has replaced land as a supplement to the earning capacity of labor. This essentially means diminished freedom for the laboring classes. To understand this we must appreciate the inextricable relationship between property rights and economics. The market’s role in this regard via wealth enhancing transactions essentially means that property begets more property and more freedom for the property owners and less freedom for the laborers. This then raises the question whether the exchange between labor and property in the market requires the market to have an ethical standard to moderate and secure a better distribution from the wealth maximizing standard of the market.

The free exchange principle behind the market generates unfree results. In other words, the idea of private property should be enhanced with an ethical and moral restraint on the license implied in the free exchange market principles. The philosopher John Locke suggested three basic principles of ethical morality that should inform the nature of property. First, universal

* Ha-Joon Chang, cited in “The Market Myth” by Tomas Bjorkman, *Cadmus*, Volume 2, Issue 6 (May 2016).

participation—in current situations this does not exist. Second, the distribution or sharing in the market mechanism is focused on actual production and voluntary exchanges. Thirdly, ethics and morality require constraints and property to secure the rights of others and society in general. These foundations of the nature of property in the context of market exchanges mean no barriers to market entry, voluntary exchanges, and constraints on monopoly. This therefore means that the bargaining power of individuals needs more than an invisible hand.

In short, the market's ethical standards that constitute the market require rules to ensure that economic conditions and perfect market competitions are interdependent. Without these rules of ethics and morality, property generates concentration, monopoly and the abuse of property. Voluntary exchanges in the market are simply eroded by the concentration of private property in the field.

Friedman's approach here makes a cosmetic attempt at competitive equal opportunity but the operation of code of Friedman's system demonstrates that acquiring opportunities in proportion to wealth and property favors the wealthy over the poor. It would therefore seem imperative that the state's role in framing the constitution of the market requires a state to secure the moral and ethical foundations of property itself. If there is no real competitive opportunity to acquire property and voluntarily engage in exchanges, the middle class and the poor suffer great duress and the wealthier market players experience favored treatment. It would seem that Friedman's instrumental justification of his capitalist ethic and wealth maximization without restraint, is both freedom denying and politically dangerous.

An elucidation of the interrelationship between money, finance, property and economics is summarized by Pascal van Griethuysen.* He summarizes the directing force of property economics with the right perspective.

Figure 1: Directing Force of Property Economics⁵

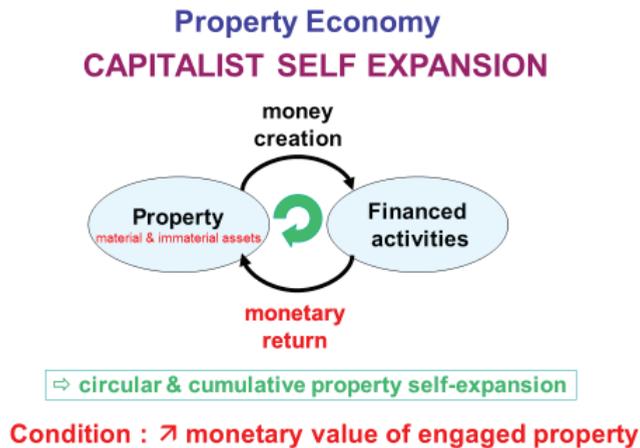
- **Veblen (1904), Heinsohn & Steiger (1996), Soto (2000)**
- **property: constitutive institution of capitalism**
- **property dual potential**
 - **material: concrete exploitation of resources (direct income)**
 - **financial: engaging property in capitalisation processes (indirect)**
- **proprietors' cumulative enrichment**
- **capitalist self-expansionary nature**

The position of property in the market unconstrained by moral or ethical factors and sustained by the emergence of a natural law influenced on both property and the mechanisms

* Presented by Pascal van Griethuysen at the Post-graduate Certificate Course/Roundtable in "Human Centered Economics" from February 1-3, 2017 at Inter-University Centre, Dubrovnik, Croatia https://youtu.be/H_Btj15J57w

of market exchanges has meant that both property and the mechanism of exchange have near absolute status and resist even the implicit constitutional rules of the market itself. This approach triggers capitalist self-expansion via an unrestrained notion of capital and exchange.

Figure 2: Capitalist Self-expansion⁶



We should understand that property is essentially a matter of commodities and commodities, which are converted to monetary growth. The following diagram clarifies and demonstrates the ease of flow from property to capitalization to concentration:

Figure 3: Flow from Property to Capitalization to Concentration⁷

END : ↗ property value = monetary growth

MEANS ?

- **physical growth** (spatial expansion, biotic resources overexploitation, industrialisation, mineral resources depletion)
- **commercial strategies** (lay-off, delocalisation, marketing, advertising)
- **institutional strategies** (commodification, enclosure, market creation; selective deregulation & liberalisation)
- **profit driven innovations** (technical, commercial, financial & institutional)
- **property capitalisation & concentration** (acquisitions & fusions)

These diagrammatic outlines of property, economy, commodification, money and markets sustain the outcomes of wealth concentration and lowering of the economic position of the middle and lower classes. This model sustains its stability by the explicit or implicit juridicalization of the notion that property is an absolute, or a near absolute private right (Lochner), and the mechanism of the market is a related near absolute rightly sustained by natural law and resisting political authority to intervene or modify (Lochner). The idea of contract as a property right and a legal absolute and by implication the market mechanism has a similar juridical underpinning.

“Investors dabbling in the various kinds of derivatives are simply gambling according to the throw of the dice.”

10. Friedman and the Nature of Property in the Market

We have discussed the problem of the ethical limitations of property in Friedman’s neo-liberal theory. However, lack of ethics and morality has not been thought to be a serious limitation on the drive to privatized absolutism regarding property and the market. The entire sub-discipline of law and economics is devoted to deregulation and the minimal state and the natural law basis of the market and private property.

The fundamentals of economic neoliberalism insist upon a radical privatization of property and value in society. In short: if a matter may be privatized, it should be privatized. Additionally, economic neoliberalism favored the notion of the minimal state. In short: the more deregulation and limitation on the state’s power to regulate, the better. A strong belief in corporate tax cuts and reduced taxes for the wealthy. A strong belief in trade liberalization and open markets. Finally, with regard to the minimal state, there would be a massive diminution of the role of government in society.

The writer Tayyab Mahmud describes a summary of economic neoliberalism as follows:

“The neoliberal project is to turn the “nation-state,” one with the primary agenda of facilitating global capital accumulation unburdened from any legal regulations aimed at assuring welfare of citizens. In summary, neoliberalism seeks unbridled accumulation of capital through a rollback of the state, and limits its functions to minimal security and maintenance of law, fiscal and monetary discipline, flexible labor markets, and liberalization of trade and capital flows.”⁸

11. The Nature of Property as a Foundation of an Allegedly Free and Efficient Market

The financialization of the economy led to the creation and recognition of many forms of new property. The system encouraged the investment of property in property and the generation of “new property”.

New forms of property emerged in the financial markets. Several of these forms were based on derivatives, others on credit default swaps and other exotic ideas. In short, the speculation in derivatives permits investment because the outcome of the derivative is a new form of property. The problem is how to identify the property and determine its potential risk or economic value. In order to understand derivatives, it is generally recommended that the investor take a course in calculus. If one passes the course, this may still not be enough to understand the complex logarithms that are supposed to represent the form of capital value which may be traded in the financial markets. In short, investors dabbling in the various kinds of derivatives are simply gambling according to the throw of the dice.

Neoliberalism became a critical ideological strut for the ascendance of new financial mechanisms, driving the accretion of wealth to insiders. The financial mechanisms were facilitated by ingenious ways in which property interest and securities could be invented or created. This gave dynamism to the financial markets as these new instruments became a cornerstone for market trading. Non-regulation permitted the generation of new forms of property without restraint.⁹ Laws which gave a high priority to the protection of private property ensured the insulation of these innovations from regulation and accountability.

The process by which paper assets could be manipulated and marketed essentially resulted in a ton of paper assets generated by new financial instrumentalities such as derivatives. The reproduction of paper property ran amok. This made for a huge gap between finance capital and capital generated by the real economy. The securitization, bundling and marketing of mortgage obligations and the growth of sub-prime lending in this regard accelerated the gap between financial capital and the real economy.

This gap proved to be unsustainable and the financial bubble burst, creating a major economic crisis in the economy of the United States and other leading economic powers.

The financial sector remains a backbone of the real economy and the collapse of the financial market impacted upon the viability of the real economy. Thus, the recession impacted on the global political economy of all states with resultant impacts for socio-economic justice. When national economies struggle, that struggle is reflected in the depreciation of living standards (accelerated inequality, unemployment and poverty).

12. Market Theory, Political Culture and Regulation

To put these developments into a broader context of governance and political perspectives, it is important to recognize that the UN system inspired by the four freedoms, which were in turn influenced by the New Deal, had developed a greater confidence in the role of government in moderating the negative effects of free market capitalism. Macroeconomics was a real science.

In this sense the role of governance and regulation was at least implicitly apparent in setting up a global mechanism of limited but important global normative guidance in the form of the UN Charter. When Roosevelt expressed the war aims of the allies in terms of the four freedoms, he was also expressing those aims of a social democratic form of governance

which as a global matter was engaged in a war with totalitarianism. In the totalitarian state, the assumption of omnipotent powers could be seen as powers which extinguish freedom.

13. Neoliberal Legal, Political and Economic Culture: Implications for Freedom and Justice

In 1944, the scholar Karl Polanyi provided a critical meditation on the role of governance and regulation in the context of human freedom. He distinguished two kinds of freedom: a form of good freedom, and the other a form of bad freedom. Bad freedom involved the freedom to exploit others.¹⁰ The freedom to take disproportionate benefits without commensurate service to the community, the freedom to appropriate technological invention without use for public benefit and the freedom to exploit social disaster for private benefit.

With regard to the good side of freedom, Polanyi stated: “The market economy under which these freedoms thrive also produced freedoms we prize highly; Freedom of conscience, freedom of speech, freedom of meeting, freedom of association, freedom to choose one’s own job.” These freedoms are the product of the conditions that also give us the bad freedoms. Polanyi speculated, interestingly, on a post market economy and its capacity to enhance freedom. According to Polanyi, the passing of the market economy can become the beginning of an era of unprecedented freedom.

Juridical and functional freedom can be made wider and more general than ever before; regulation and control can achieve freedom not only for the few, but for all. Freedom is not an appurtenance of privilege, tainted at the source, but a prescriptive right extending far beyond the narrow confines of the political sphere into the intimate organization of society itself.

Thus will old freedoms and civic rights be added to the fund of new freedoms generated by the leisure and security that industrial society offers to all. Such a society can afford to be both just and free. Polanyi also noted that an important impediment to such a future was the moral obstacle of liberal utopianism. He refers to Hayek as a key figure in this area. According to Polanyi, “Planning and control are being attacked as a denial of freedom”. This is a fundamental postulate of the social democratic state. Free enterprise and private ownership are declared to be essentials of freedom. No society built on other foundations is said to deserve to be called free. The freedom that regulation creates is denounced as unfreedom; the justice, liberty and welfare are decried as a camouflage of slavery.* Polanyi’s view of neoliberalism is that it is doomed. It has the seed of authoritarianism and fascism. Thus, the good freedoms are destroyed and the bad ones are ascended. According to neoliberalism, an alternative perspective of social democratic culture is that of good and bad freedom and the role of the state in maximizing the good and minimizing the bad is an important insight into the modern industrial state influenced by social democratic political principles. It is very consistent with Roosevelt’s view that severe economic deprivation and poverty diminish the freedom of the person deprived. The view of Roosevelt’s social democratic political culture is that the disparities between the elite rich and the deprived poor are moderated by regulation which has the consequence of enhancing good freedom and moderating bad freedom or

* Ibid.

political license. Thus, regulation in this view is not an oppressive state-centered invention, but part of the complex process of using the state to manage power in ways that enhance the aggregate position of the individual in terms of equality, freedom and dignity. This idea is reflected internationally in the International Bill of Rights. The development of human rights codes, regulations and practices are not instruments of repression but instruments that enhance human freedom and liberation. In this sense, the UN Charter and Roosevelt's four freedoms reflect social democratic perspective about the values which guide and animate governance and regulation at the international level as well.

14. Climate Change and Sustainable Development

This now brings us to the problem of neoliberalism and the challenge of climate change and sustainable development. On September 25, 2015, the UN adopted a sustainable economic and political global policy in the shadow of the perceived dangers of climate change. There were three essential points:

1. Ending poverty
2. Ecological responsibility for protecting the planet
3. Global prosperity for all

The following are the 17 UN sustainable development goals:

1. End poverty in all its forms everywhere
2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
3. Ensure healthy lives and promote well-being for all at all ages
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5. Achieve gender equality and empower all women and girls
6. Ensure availability and sustainable management of water and sanitation for all
7. Ensure access to affordable, reliable, sustainable and modern energy for all
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
10. Reduce inequality within and among countries
11. Make cities and human settlements inclusive, safe, resilient and sustainable
12. Ensure sustainable consumption and production patterns
13. Take urgent action to combat climate change and its impacts
14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
17. Strengthen the means of implementation and revitalize the global partnership for sustainable development*

“The role of law in seeking to marginalize the authoritative processes of economic regulation must become more responsible to a range of values broader than mere efficiency and the worship of natural law based market fundamentalism.”

15. Climate Change and the 17 UN Goals

The looming crisis of climate change has generated a stress on the importance of responsible economic development, that is to say sustainable development. Implicit in sustainable development is the notion that such development does not accelerate climate change and the risk to the entire eco-social system.

To destroy the ecosystem would clearly risk the survivability of humanity. The question of survivability implicates the entire International Bill of Rights. These challenges are stark and mandate new thinking. Such thinking minimally must include a new realism about a global economic context that is truly eco-social in scope. It must also include a scientific understanding of human social processes and power relations that are global in impact.

Finally the role of law in seeking to marginalize the authoritative processes of economic regulation must become more responsible to a range of values broader than mere efficiency and the worship of natural law based market fundamentalism. These matters implicate values of global eco-social scope and they provide challenges to deepening our understanding of vital choices that we must take to save humanity.

16. Human Rights Values and Eco-Social Responsibility as Guides to Global Choice

The new economic theory has its primary focus on the vital importance of human capital for a viable human-centered new economic theory. The foundation of this theory is rooted in socio-economic realism. Human beings are activated and energized to pursue desired values and compelling needs through human institutions sustained by human resources including law. What drives these human beings in their pursuit of values is the following:

*See Transforming our world: the 2030 Agenda for Sustainable Development, G.A. RES/70/1, UN Doc A/RES/70/1 (Sep 25 2015), http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

“Society is a teeming ocean of human energies and capacities, unorganized but latent with unlimited productive potential. The organization of social energies and capacities converts social potential into Social Capital. Each member of society is a microcosm of human potential—an unorganized reservoir of energies, aspirations, and capacities. The organization of the energies and capacities of each member of society converts human potential into Human Capital. The formed Individual is the summit of social evolution where Human Capital and Social Capital intersect and become infinitely productive. The Individual is a product of the past evolution of society who internalizes its accumulated knowledge and capacities, attunes himself to the emerging aspirations and potentials of society, and applies his energies at critical points for personal accomplishment and collective progress. Thus, we find repeatedly in history that one individual can change the world.”¹¹

In short, human beings as central participators in social processes bring the energy of humans directed at the satisfaction of value needs, wants and desires. The values that human capital seeks to advance are the values encapsulated in the entire International Bill of Rights and implicit in the UN’s 17 Sustainable Development Goals. The specific values are values that are interdependent and they often inter-determine the range and efficacy of all other values. We list these values as follows: Power, Wealth, Respect, Health and Well-being, Skill, Rectitude, Affection, and Aesthetics.

“Unemployment is neither inevitable nor necessary.”

The responsibility of all in social process is to facilitate maximizing the production and fair distribution of all the values to secure the dignity worthy of the individual and the integrity of the earth-space system. If we consider the individual human being as a critical unit of human capital, then the production and distribution of values with a critical role for human capital is the best assurance of the development that will advance and defend the prosperity of the subjects of human capital.

The specific human rights dimension implicated in the role of human capital is the value of opportunity freedom and capability freedom. Without opportunity, human capital is depreciated. Without capability freedom, the potentials of human capital are diminished or obliterated.

In the context of current global economic order, the world community faces a crisis of radical inequality and a vast expansion of radical unemployment.*

17. Unemployment

The central issue for conventional neoliberalism appears to be that unemployment is a necessary byproduct of generating higher profits in the commercial sector; it is natural and inevitable. What is ignored is that unemployment radically undermines the capacity of

* The appendix to these notes includes portions of an earlier article dealing with radical inequality and radical unemployment.

human beings to be energized and contribute to economic prosperity. What unemployment does is that it extinguishes opportunity freedoms and without opportunity freedoms, no capability freedoms can be exercised, thus guaranteeing a wastage of human energy. There are innumerable theories that show that unemployment can be eliminated by wise judicious policymaking with a concern for the full utilization of human capital. Unemployment is neither inevitable nor necessary.

If we conceptualize the right to employment and labor as encapsulated in the value of skill, it is possible to briefly map the way in which skill is a base of power for securing other articulate human rights values. For example, skill in terms of access to power is a base that is critical to the shaping and sharing of power. In this sense, skill is a critical value for protecting human rights interests tied up with the exercise of political power. Similarly, skill is an important base to acquire wealth and related economic values and is therefore critical for economic justice. Skill is also a base for access to education and enlightenment which are central to human development. Skill is also a base for access to health and well-being as well as to the institutions of social rectitude. Thus, employment rights including access and performance influence every other human rights value. Similarly, every other human rights value will influence the shaping and the sharing of labor and skill values. With this in mind, we examine the problem of full employment as a human right. It may be at the outset better to see this in terms of the political will and articulate ideology of the state and state responsibility. From this perspective it is self-evident that governments routinely intervene in matters that directly affect the economic status of the individual. Such interventions may well influence both quantity of employment opportunities available as well as the nature of these opportunities. Some obvious examples of governmental policy influencing these issues are its role in setting interest rates, its approach to budget deficits, the expansive or restrictive nature of its import and export policy, its tax policies, its military expenditure, its immigration policies, its approach to industrial development, its investment in the society, its licensing policies, its environmental regulations, and a good deal more. One illustration of the way in which an ostensibly neutral tax policy could influence employment patterns is the regulation that provides incentives for capital investment in the form of depreciation while providing disincentives to employment in the payroll tax. This suggests a partiality to investing in technology rather than labor.

“The right to employment may be seen as the critical foundation of economic democracy.”

Similarly, every other human rights value will influence the shaping and the sharing of labor and skill values. With this in mind, we examine the problem of full employment as a human right. It may be at the outset better to see this in terms of the political will and articulate ideology of the state and state responsibility. From this perspective it is self-evident that governments routinely intervene in matters that directly affect the economic status of the individual. Such interventions may well influence both quantity of employment opportunities available as well as the nature of these opportunities. Some obvious examples of governmental policy influencing these issues are its role in setting interest rates, its approach to budget deficits, the expansive or restrictive nature of its import and export policy, its tax policies, its military expenditure, its immigration policies, its approach to industrial development, its investment in the society, its licensing policies, its environmental regulations, and a good deal more. One illustration of the way in which an ostensibly neutral tax policy could influence employment patterns is the regulation that provides incentives for capital investment in the form of depreciation while providing disincentives to employment in the payroll tax. This suggests a partiality to investing in technology rather than labor.

To the extent that employment is one of the most important mechanisms for the allocation of purchasing power to the individual, the right to employment may be seen as the critical foundation of economic democracy. If society cannot assure the survival of all citizens through employment access, it may be that the state has a special obligation to provide employment opportunities for all. In short, the right to employment is not a privilege, it is a right. To the extent that economic survival is critically sustained by employment it could be argued that the right to employment has the character of a fundamental human right. The critical question then is: How strategically should the state act to secure this fundamental right to economic

survival? The International Commission on Peace and Food provided a report to the UN on this matter in 1994. Its principal point was that there had to be a universal affirmation of and commitment to the delivery of fundamental economic rights to all. According to the International Commission there should be an approach which recognizes:

“.. [t]he right of every citizen to employment is the essential basis and the most effective strategy for generating the necessary political will to provide jobs for all. What is needed is not another job generation program, but a change in social values that will accelerate the natural and inevitable evolution of society, from one in which labor is regarded as a dispensable resource to one based on full human rights and the enormous productive potential of the human being. The type and magnitude of change needed today is comparable to that embodied in President Roosevelt’s New Deal for the American people during the Great Depression at a time when 25 percent of the work force was unemployed, to the Indian Government’s decision to launch the Green Revolution in the mid-1960s to achieve self-sufficiency in food grains at a time when the country was highly dependent on imported food to stave off famine, and to Mikhail Gorbachev’s initiatives late in the 1980s to end the Cold War and transform Soviet society.”¹²

There are many skeptics in political circles as well as academic and scientific circles who genuinely believe that full employment is simply an unfeasible policy. It is very possible that this outlook has a corrosive effect which initiates this discourse with an assumption of futility. Thus, a critical part of initiating this dialogue is the assumption that a full employment society is a realistic prediction if there is a plausible and wide-spread acceptance of the necessity of this in economic terms as well as the importance of this commitment in juridical and moral terms. In this sense, more may be required to fully explore all the ramifications of the notion of employment itself. This could include not simply the market value of labor but other components of labor that deal with the very nature of human development. An approach is suggested in the Human Development Report of 1990 which stresses that a significant element of the dynamic of employment is embedded in the “capability approach.” This approach suggests that economic measures of labor value are insufficient. For example, a measure like the GDP may unintentionally distort our view of the critical value of employment to individual and social well-being. It may be that the notion of employment seen through the lens of capability would emphasize the production and distribution of freedom as a better indication of human value. According to the Human Development Report, “the basic objective of development is to create an enabling environment for people to enjoy long healthy and creative lives. This may appear to be simple truth but it is often forgotten in the immediate concern with accumulation of commodities and financial wealth.” Central to the capability approach is the insight that social and economic arrangements should have as a key objective the expansion of human capability. This includes the freedom to defend and enhance valuable activity. Central therefore to the emphasis on capability is the expansion of human freedom in the aggregate in the economic sector. It also permits a clearer link to the fundamental human rights standards which are now the foundation of modern social

organization. In short, what is central then to the human rights approach to employment is the recognition of “opportunity freedom” (capability) and “process freedom.” These freedoms are then cornerstones of the dynamic of employment both in terms of the conditions of access and performance. The challenge that a focused human rights approach generates is that it compels a discourse about the values which implicate human rights and are part of the culture of labor, skill and employment. This carries a further implication that these values must in turn provide compelling normative guidance for a newer approach to the problem of a commitment to full employment. It may be assumed that the current flavor of dominant economic policy is one that either tolerates or may even tacitly encourage unemployment as an economically efficient mechanism for stabilizing the market, and the dominant business values of self-interest behind it. This means that we must generate a change in the discourse of our values and then look toward a process of those changes being reflected in a wide framework of decision making at all levels for the promotion of full employment. This view is also taken by the International Commission as follows:

“We must recognize that the present status and functioning of our economies is the result of specific choices that have been made in the past, based on priorities and values that were relevant or dominant at the time, but which we certainly are not obliged to live with indefinitely, and, in fact, are continuously in the process of discarding in favor of new values and priorities. The rapid adoption of environmentally-friendly policies around the world is positive proof of how quickly the rules, even economic rules, can change when there is a concerted will for a breakthrough.”¹³

18. Inequality and the Neoliberal Aspects of the American Economy

The most notorious fact about the American economy is that for decades we have experienced an inexorable drive to move the overwhelming majority of American citizens to the bottom of the economic system. In short, the expansion of inequality has been an extraordinary fact of the politically inspired economic policies of the neoliberal economists. Radical inequality has the consequence of diminishing opportunity freedoms, thus undermining human capital. By undermining opportunity freedoms, we correspondingly undermine capability freedoms, which further diminishes the value of a human capital economy.

“The success and the genius of American civilization has been its belief in human capacity and the critical importance of human resources for national prosperity.”¹⁴

Let us start at the top. Reputable economists tell us that one percent of the American population takes one quarter of the its income. One percent of the American population controls forty percent of the nation’s wealth. One percent of the American population has seen their incomes rise by over eighteen percent. The central political question is whether this kind of outcome is desirable and in the national interest of the United States. If this is desirable, is there a sound reason to justify it? There have been marginal economic theories

which suggest that the one percent who have benefited so mightily are simply better than the rest of the nation. Many people whom we consider talented and who have made enormous contributions and inventions to modern society have not necessarily benefited from this. The financial wizards who almost destroyed the United States' economy were in fact rewarded with performance bonuses. Although to their credit, they saw the irony in this and changed the label to retention bonuses. Meanwhile, those at the bottom of the economic ladder were not candidates for any form of retention. They were candidates for pink slips. One of the assumptions of neoliberal economists is that if there exists a bigger economic pie there will be more to go around. Unfortunately, the arithmetic is the other way around. The bigger the pie, the less the American citizens share in its bounty. It would seem that American economic growth is essentially a growth that is downwards in the direction of inequality. This means there exists an exponential growth in lost opportunity for the American people. The extinction of opportunity for the people is a major social and economic loss because the success and the genius of American civilization has been its belief in human capacity and the critical importance of human resources for national prosperity.¹⁵ This means that when we depreciate human resources we are attacking the recipe, which is at the heart of American genius. There is of course enough blame here for everyone. However, I think most of the blame must lie with the neoliberal apologists. They have historically been the most frenetic defenders of economic monopoly. Additionally, they have been successful in hijacking rational tax policy debate. No new taxes means that the weaker members of the body politic still pay while the special interests, which fund the neoliberals, the well-healed financial oligarchs prevail with outrageous tax holidays. Indeed, a recent survey about the fairness of the tax system showed only twelve percent believing it was fair and eighty eight percent believing it was unfair.

The consequence of these outrageous benefits to those who already have an excess of resources is that they also promote the idea that national investment in education and human resources, investment in technical innovation and sound infrastructure is a waste of scarce resources. Their version of appropriate national incentives is driven by an intense desire to discourage investment in the future based on basic research and the central importance of our transportation and infrastructure system. Essentially, neoliberal policies have hugely empowered the financial oligarchs while undermining the participation of the overwhelming majority of citizen stakeholders in the process. They promote no version of a national common interest and see only the vista of narrow special selfish interests. Greed is king. They attack labor unions, promote the replacement of labor with technology and export jobs abroad because foreign labor is cheap. American labor is a liability. It is too expensive for the oligarchs. Hence, their mantra about jobs is "send jobs abroad." The government is the problem, is the enemy because it is the critical restraint on the unfettered power of economic oligarchs. Now the present agenda appears to be clearer: do what we need to do to keep our wealth and get more of it. Demonize the government as a moderator between extremism and the people; extinguish the opposition such as the labor unions and the independent media and most critical of all, no taxes on the rich. Probably the most impressive victory of the financial oligarchs was their promotion of the economic theories of neoliberalism. The center point of this approach was to oppose any and all government regulation.

The great success was the deregulation of the financial sector. With the financial benefits, which they acquired through a non-regulatory state, they could use their bounty of wealth as a base of power to control a good deal of law making, and they did. Their successes have permitted a huge scale of financial manipulation in a no-financial rules context—the context they in effect purchased. This was a good financial investment. After the Citizens United case, a major Supreme Court blunder, the corporate sector could now begin the process of purchasing the government without spending limits. In short, the Supreme Court solidified the nexus between wealth concentration and its capacity to control the government in an almost complete form. One illustration of many will suffice. Big Pharma was able to squeeze a trillion dollar boondoggle out of the government by the neoliberal drive to block the government from bargaining with Pharma about the price of drugs. The neoliberals have their eyes on other temptations such as Medicare, Medicaid Security. What is it that drives the neoliberals to destroy highly popular social safety nets? The answer to the above question is to be found in the longstanding neoliberal nightmare called the New Deal. The New Deal produced popular policies and its political success was reflected in Roosevelt being elected four times. After his death neoliberals considered that the New Deal was popular and an important base of power for the Democrats. The problem they confronted was that the New Deal programs were popular and could not be directly attacked. Their agenda focused on foreign fears and anti-communism. However, the lingering fear of New Deal institutions was finally frontally assaulted by the brilliant Ronald Reagan. The critical neoliberal strategy would now be to run up huge deficits so that there would be no funds to pay for New Deal programs. Moreover, if the Democrats came back to power, they would find that there is no money in the state bank to fund their programs. So fiscal conservatives ran up huge deficits, and borrowed billions, which they could now distribute as governmental socialism to neoliberal business and defense interests. This left us with a deficit nightmare and a mighty recession. With a great deal of political amnesia neoliberals now proclaim the morality of living within our economic means. You cannot spend funds if your bank account has no funds in it. They are the architects of this approach and the creators of the monumental deficit. Few heard from the deficit hawks during the Bush spending spree, fueled with money borrowed from China. We still do not hear the neoliberals willing to acknowledge their budgetary scam. Meanwhile, the United States is in a spiral towards radical inequality and there is a diminishing of our national values. Perhaps national economic oligarchs should be reminded of the wisdom of Alexis de Tocqueville who saw the key idea behind the American genius as “self-interest properly understood.” By this he meant that by taking care of your own self-interests you simultaneously express a concern for the other person’s self-interest as well.

There is strong popular endorsement of economic neoliberalism. A change here could have global implications for the evolution of a political economy whose foundations are rooted in human capital and human rights. It should be noted that President Roosevelt insisted that economic deprivation meant the extinction of human liberty.

President Roosevelt commissioned a draft of fundamental economic rights. This was precocious and came long before we had the foundations of an economic bill of rights at the global level. Certainly, the rights indicated in this draft are rights that could be adopted and amplified to meet the current needs for fully utilizing human capital on a global basis:

- The right to work, usefully and creatively through the productive years;
- The right to fair play, adequate to command the necessities and amenities of life in exchange for work, ideas, thrift and other socially valuable services;
- The right to adequate food, clothing, shelter and medical care;
- The right to security, with freedom from fear of old age, want, dependency, sickness, unemployment and accident; The right to live in a system of free enterprise, free from compulsory labor, irresponsible state power, arbitrary public authority and unregulated monopolies;
- The right to come and go, to speak or to be silent, free from the spying of secret political police;
- The right to equality before the law, with equal access to justice in fact;
- The right to education, for work, for citizenship and for personal growth and happiness; and
- The right to rest, recreation and adventure, the opportunity to enjoy life and take part in advancing civilization.

19. Neoliberalism and Global Inequality

A recent report from Oxfam indicates that eight of the world's richest men own as much of the world's wealth as 3.6 billion people.¹⁶ Oxfam maintains that the gap between the super rich and the very poor is far greater than it was a year ago. Very few of the apologists for neoliberalism consider this a matter of global importance. But Oxfam believes that this crisis of inequality will be the harbinger of seismic political changes. According to Oxfam, "it is obscene for so much wealth to be in the hands of so few when one out of ten people survive on less than two dollars per day." Also "inequality is trapping hundreds of millions of people in poverty, it is fracturing our societies and undermining our democracies." Oxfam has relied on information from the Swiss bank, Credit Suisse. Indeed, they also used the Forbes list to determine that Bill Gates, the Microsoft founder, is the richest individual in the world, worth 75 billion dollars. Others in this league include Amancio Ortega, Warren Buffet, Carlos Slim, Jeff Bezos, Mark Zuckerberg, Larry Ellison, and Michael Bloomberg, former mayor of New York. It should be noted that Gates has called upon the billionaire class to pay their taxes. The Oxfam reports suggest that such rampant inequality erodes trust in the basic institutions of global financial governance.

*"The implications of the global trust crisis are deep and wide-ranging. It began with the Great Recession of 2008, but like the second and third waves of a tsunami, globalization and technological change have further weakened people's trust in global institutions. The consequence is virulent populism and nationalism as the mass population has taken control away from the elites."**

* Ibid.

20. Towards Theoretical and Methodological Foundations of NET

The new economic theory requires a comprehensive focus that does the following:

1. The focus must transcend narrow disciplinary boundaries.
2. The focus must be interrelated, interdependent and defy solution by partial, sectoral approaches.
3. The focus must be eco-social and global in scope and cannot be fully addressed without coordinated actions of international society.
4. Recognition that a multitude of approaches resolving these issues and challenges are subject to conflicting claims, priorities and interests.
5. These ideas and those that follow although somewhat different are overall compatible with those supported by the Nobel prize winning economist Joseph Stiglitz, *Globalization and Its Discontents* (2002).¹⁷ He suggests an important role for NET lawyer economists.

The importance of new economic thinking is that the problems are often interrelated with larger society values and interests. Economics, for example, cannot be isolated from political power or the value of respect, or issues of health and well-being, or issues of skill, positive sentiment, or morality and rectitude. The following is a partial listing crying out for new paradigm thinking:

1. Economy and Employment: How can global food security, full employment, and abolition of poverty be achieved within a decade?
2. Energy and Ecology: How can global living standards be raised to middle class levels without depleting or destroying the environment or depriving future generations of the capacity to sustain these achievements?
3. Human Capital, Education, Health and Welfare: How can global levels of education and public health be raised to OECD level?
4. Money and Finance: How can the necessary financial resources be generated and mobilized to achieve the goals described in the first three questions?
5. Security: How can we permanently eliminate war and WMD that threaten to destroy all other development achievements?
6. Global Power and Governance: How can we design and implement systems of global governance capable of implementing necessary measures to achieve the other five goals for the welfare and well-being of all?

The necessary elements for new paradigm thinking must include the following:

1. It must be contextual, i.e., it must perceive all features of the social process of immediate concern in relation to the manifold events comprising the relevant whole.

2. It must be problem-oriented.
3. It must be multi-method.
4. It must be interdisciplinary with a focus on the dynamics of global interdependence and global inter-determination.
5. It must be guided by the normative values of the Global Bill of Rights.

21. The Context of Ecological Values

There was a time when the conventional wisdom in economics was that nature and related environmental resources were unlimited. Today, the reality of climate change challenges this earlier level of idealism. A new economics must consider both the potentials and the limits of the ecology of the planet. The ecology of the planet, therefore, is a crucial factor of context for a new political economy. This must be understood in terms of the creative capacity of human capital.

22. The Context of Global Social Interaction

Global social interaction involves the shaping and sharing of all values. The outcomes of this process generate the aggregate statistics of human development or the lack of human development. One of the most important problems that emerges from global social interaction is the problem of effective power and social conflict. However, the new economic theory must have a useable model of the global social process in order to fully appreciate the problems it generates on a global basis for all values. This process raises the important issue of the role of law and its institutions in facilitating the evolution and development of human capital as a positive global resource.

23. The Context of the Global Process of Effective Power

The global social process reproduces the institutions and imperfections of the production and distribution of global power. It is well understood that the outcomes of global power represent conflict and competition. Additionally, the expression of global power in society is done through the process of decision-making itself. We can call this decision-making according to naked power. Since power expresses itself in terms of conflict, war and often violence, it will be obvious that peace and security are critical foundations for a social process that seeks to maximize its human capital resources. In short, war consumes human capital resources, and does not enhance or reproduce them. The new economic theory must, therefore, account for the global processes that generate and sustain human conflict, since these processes generate deficits in development.

Stiglitz has suggested that the entire law and economics profession is a special interest group for the plutocracy and they have done this by fierce advocacy targeting rational state policy and regulation. This suggests that progressive law and economics lawyers should contest the negative professional class and they should vigorously assert the value of a rule of law based constitutional order based on social realism and human rights values. The strength

of this perspective should be based on the authority of the people as a whole, sustaining a new constitutional order based on the authority and human capital of the people itself. This would seem to be the surest way to evolve creative value based institutions to affirm human progress and to avoid human tragedy. Providing markets the license to run amok has been a global disaster. Clearly the challenge of economic globalization is a challenge for progressive lawyers and their allies to design more enduring and promising patterns of international infrastructure to save capitalism from itself. Enrique Carrasco insists that scholarship in law and economics now addresses economic globalization taking broader factors into account like distributive justice, human rights, social and constitutional development. Stiglitz and others insist that dysfunctional global economics provides a serious challenge for lawyers as economic, political, and social engineers to provide a more effective international economic structure to salvage capitalism.

24. The Context of the Evolution of Power into Behavioral & Documentary Constitutional Processes

Conflicts about power do not always endure indefinitely. Indeed, there are periods when the power broker contestants in conflict may see that the continuance of conflict may only result in zero sum losses. This realization may generate the elements of inter-elite collaboration from which understandings may emerge about how to manage power in ways that avoid conflict and promote collaboration. If this happens, a society may emerge with a series of understandings about how power is to be distributed, indeed allocated among the power broker contestants. This level of institutionalization of power will reflect the emergence of the power dynamics constrained by distributions, which have the support of the authority of community members. When there is a form of constitutional process, we effectually have expectations about institutionalizing the forms of authorized decisions about decision-making itself. This is the foundation for the establishment of a system of public order in which all the values are distributed and produced via the authorized institutions of society.

It would, therefore, be appropriate that the new economic theory develop and map the constitutive process (local to global) because it provides the framework of authorized decision-making regarding all the basic values in society including wealth. In this sense, a constitutional order that has a working capacity has an approximation to the idea of the rule of law. And the constitutive process is made operative by the constitutive functions of decision-making. Thus, constitutive decision-making may both directly and indirectly influence development and progress. Additionally, a theory of economic novelty would have to account for the decision-making functions.

25. The Functions of Decision-making Relevant to a New Economic Paradigm

The architecture and functions of decision-making listed below apply to all value processes, which are demanded in a dynamic global social process.

1. Intelligence. Intelligence, which includes gathering information relevant to making decisions and its processing, storage, retrieval, and distribution to all participators performing decision functions.
2. Promotion. The decision-making function of promotion requires agitation and recommendation of certain policies, which in the form of prescription have the quality of law. In this sense, promotion is a critical component in decision for directly changing the common interest. It is in this sense that we cannot look at economics as value-free.
3. Prescription. This decision function implicates the formulation and adoption of certain policies as authoritative pronouncements in appropriate sectors of the social process.
4. Invocation. This function of decision-making is essentially a provisional decision function that characterizes behavior as incompatible with the law and goals of the community. Those who perform the invocation function raise the question of what initiatives enhance or violate community prescriptions.
5. Application. This is the authoritative characterization of conduct as lawful or unlawful. To secure lawful ends, the applier must use tools of some form of sanction to secure appropriate application. In terms of the objectives of development, the consequences of development may be critically related to the actual applicative performance. The new economic initiative must, therefore, give careful attention to the idea of application if development goals are to be real.
6. Termination. The decision function of termination means the termination of something in the status quo and its replacement by something that changes the status quo. New economic theory must ensure the termination of dysfunctional traditional standards and embrace new thinking.
7. Appraisal. The theory of decision-making as applied to economic policy requires that there be constant measures that may be appraised in terms of advancing toward progressive economic goals and avoiding the regression to the opposite.

26. Decision-making Challenges for Value Processes

For us to develop an approach that permits us to identify where we are and where we want to go, we would have to measure development in terms of the existent state and potentials for transformation of at least the following nine values: power, wealth, enlightenment, skill, well-being, affection, respect, rectitude and aesthetics.

1. Power. The most important expression of power as decision is the understanding of the institution within which it expresses itself. For example, globally, power is significantly decentralized. This means an economic paradigm of global salience runs into the problem of the degree of lack of institutionalization of power. It is probably true that the most power-deprived are the least well-off in global society. The new theory must be able to map global power and to appreciate its capacity to be mobilized for rational developmental objectives.

2. **Wealth.** In general, this refers to the aggregate volume and composition of what a society produces. It may refer to income in the community and also to the notion of an aggregate resource base. In general, when wealth is developed, the outcome is an increase in the volume and composition of products without depleting the resource base. $(P+I) \div R$
3. **Enlightenment.** What we mean by enlightenment is the prescription and application of education in social and economic development. The nature of enlightenment as social capital is evident when education in a society leads to development. A society with an increased education-knowledge base uses enlightenment to extend development through informed decision-making. Decision-makers would make decisions based on informed enlightenment.
4. **Well-being.** Well-being including health refers to the state or condition of a society and its members. The well-being of a society is directly proportional to the level of “life expectancy” and indirectly proportional to the expectancy of disease occurrence in that society. The optimum level of well-being, however, is dependent on other values in that society.
5. **Skill.** Skill is the ability to perform tasks (especially employment or professional tasks), as a function of human capital development. The skill value is for the benefit of society. Skill development is a consequence of an increase in the strength of the “skill pool” in a society where skills are directed towards development. Skill is a critical component of individual and social capital.
6. **Affection.** Affection is a form of positive sentiment and underlines the loyalty of individuals and associations to the group. Being a basic value, it has tremendous social capital. The increase in scope of positive sentiments in a society increases developmental achievements and goals.
7. **Respect.** Showing regard for other individuals within a society is crucial to development. A lack of respect gives rise to discrimination, which in turn becomes a direct cause of retarded development.
8. **Rectitude.** Rectitude drives moral behavior in society. When the rectitude of individuals within a society matches its development goals, there emerges what we call rectitude development.
9. **Aesthetics.** Aesthetics is rooted in human creativity and in human creative capacity. A culture of strong aesthetics will inspire economic development objectives.

27. The Jurisprudence of Economic Neoliberalism

Since we stressed the vital importance of the human agents of choice at all levels of our eco-social process, it would be worth while to have a better understanding of the jurisprudence that animates and justifies neoliberalism and that segment of legal culture that seeks to justify and cement its presence.

In the early nineteenth century law, just like economics, became influenced by the philosophy of science known as positivism. To make economics a science meant a reduction in the context of accounting for values, ethics, and morality. Science was searching for an objective theory of economics, uncontaminated by the subjectivity of normative value analysis. This philosophy also influenced law. It gave birth to the conventional theory of law as the command of a sovereign imposed by a sanction administered by the sovereign. This approach radically distinguished between law properly so-called and morality.

“Science was searching for an objective theory of economics, uncontaminated by the subjectivity of normative value analysis. This philosophy also influenced law.”

Positivism influenced the US strongly in the latter part of the nineteenth century. The clearest expression of the American version of the objectivity of law and its separation from morality came from Oliver Wendell Holmes of the US Supreme Court. He had, in seeking to purge morality and its contamination of objective law, suggested that the most important way to look at law was to look at it from the point of view of the “bad man”. The “bad man” is the starting point. When he consults his lawyer, he is moved by self-interest. If he has made a deal and he wants to get out of the deal he is completely uninterested in the morality of deal making. He wants to know what is the cost of breach. In this sense, the “bad man”, who is essentially an economic operator, is moved by one important interest and that is self-interest. In short, the only question the bad man wants to answer is, what is the risk that I might get away with? The bad man therefore is essentially a businessman whose exclusive objective is to maximize self-interest. This is what law should be about as well.

Alexis de Tocqueville suggested that in American culture self-interest should be more cautiously understood. Self-interest has to include the interest of the self and the public interest. However, this latter interest appears not to be a part of the neoliberal project.¹⁸

The consequence has been that generations of lawyers are trained to serve as the “bad men”. They service tax avoidance. They service the defense of corporate monopoly. They service deregulation. They service the absolute sense of property, the non-regulation of the market, including financial markets, and they furnish and socially engineer a legal architecture to reinforce self interest, greed and a depreciation of the public interest concerns of the profession. The recently proposed budget is an indication of this trend. To gut the American government and the administrative apparatus that ensures leadership in the world can hardly be seen as ‘making America great again.’ In fact, a radical weakening of the federal government cannot conceivably be in the public interest. Only few powers would support this achievement.

The effort to destroy the regulatory apparatus of American government has been supported by the creation of a powerful legal constituency: the law and economics movement bent on a destruction of the juridical economic and political foundations of the New Deal state and its

offshoot, the modern social democratic state. The challenge here is to reassert the primacy of the constitutional foundations of the social democratic state and to engineer the institutions and architecture for the purpose of globalizing this effort. A new generation of lawyers is required for this.

“Franklin Delano Roosevelt acknowledged that the unregulated aspect of the market was in fact not the product of metaphysical forces but the product of practical human choices. If choice could make the mess, then choice could unmake the mess.”

28. The Social Democratic Constitution in Distress, the Threat of Plutocracy

In this part of the paper we provide a summary of the principal threat to the United States’ social democratic constitution, a threat fueled by economic neoliberalism and sustained by such constituencies as the Federalist Society and the law and economics movement.

Recently, the Principal Advisor to President Trump, Steve Bannon, told a reactionary audience that the prime objective in terms of policy-making for this administration was the complete demolition of the so-called ‘administrative state.’ The implications of this directive are quite far-reaching because the substantial removal of the administrative architecture of the social democratic constitutional state will effectually result in the collapse of the constitution itself. Let us put this in historical perspective.* At the turn of the last century President Theodore Roosevelt began to see the threat posed to the Federal Union and American democracy by the emergence of oligarchic business trends. He saw the threat to our constitution and its democratic principles as coming from the emergence of large scale corporate monopolies. If this were to be unchallenged, the Constitution would come under the influence and political control of an unelected plutocracy. In his time, he saw plutocracy as the greatest threat to American values.

In 1929 we had the Great Depression. Plutocratic interest was able to cement itself via the Supreme Court ruling in *Lochner v. New York*¹⁹, which made private property a fundamental and nearly unchallenged constitutional right. The unregulated free market economy, protected by the elevation of private property to near absolute status, resulted in forms of egregious speculation, which resulted in capitalism consuming itself.

When Franklin Delano Roosevelt was elected in the early 1930s, he acknowledged that the unregulated aspect of the market was in fact not the product of metaphysical forces but the product of practical human choices. If choice could make the mess, then choice could unmake the mess. Roosevelt faced incredible resistance to any form of regulatory measures to salvage capitalism from itself.

* The strategy of the current White House in weakening the alleged “deep state” may have profound consequences for the future of American Democracy. <https://www.foreignaffairs.com/articles/2017-08-15/trump-and-deep-state>

However, the *Lochner* case and the Supreme Court succeeded in overturning over 200 efforts at regulating various aspects of the economy. The result was that the plutocratic elite had learned nothing from capitalistic cannibalism and were now going to destroy the emerging New Deal state which sought to save capitalism from itself.

“The impact of neoliberal unregulated economic policy in the US and globally represents an astonishing crisis of global and national unemployment and a significant accentuation of radical inequality.”

When the composition of the Supreme Court changed, important New Deal initiatives emerged to stabilize and improve the American economy. These developments received enormous support as a consequence of World War II. The necessity of national security compelled the plutocrats and the government to work through a collaborative economic partnership, which benefitted capital, labor, government and the American people. The problem Theodore Roosevelt faced about oligarchic tendencies was moderated by the army of lawyers generated in Ivy League schools who were trained to challenge the scope and reach of antitrust law. These and other factors permitted a slower but important accretion of economic monopoly.

The University of Chicago and its economic department promoted a revived theory of a non-regulatory economic system. Milton Friedman argued that the Great Depression was not a flawed free market but a flawed system of governmental liquidity. From these developments there emerged a new normal for political economy, loosely styled ‘neoliberalism.’ According to neoliberals, the Stalinist state, which extinguished private property, was an almost complete extinction of human freedom. The regulatory initiatives of the social democratic state was a creeping form of state control and a creeping form of the denial of human freedom. Fundamental to neoliberalism was the idea that any aspect of value which could be privatized should be privatized, and, in privatized form, such value should be protected from governmental interference by the emergence of an absolutist jurisprudential protection of private property.

The weakening of financial regulation led to a massive collapse of the financial underpinnings of the world economy. Deregulation seemed not to learn much from 1929.

The evidence of the impact of neoliberal unregulated economic policy in the US and globally represents an astonishing crisis of global and national unemployment and a significant accentuation of radical inequality. Notwithstanding, Trump has already made it an objective to repeal vital regulatory standards for the financial markets. In short, the prospect of accentuated unemployment and inequality from an unregulated state looms large in the future of the world community. What is important to note here is that, at the intellectual level, the law and economics movement has made it an explicit objective to destroy the New

Deal state. They have done this by the ferocious attacks on all forms of state regulation in virtually every sphere of life. Additionally, they vigorously assert the idea that a regulatory state can rarely include rational regulation and, as a consequence, it is a destroyer of freedom. In the meanwhile, the evidence of the non-regulatory state accentuates radical inequality and extended unemployment.

“Without a constructive role for lawyers in the global economic process, we are doomed to repeat the failures of flawed market theory and the commitment to myopic, narrowly formulated principles of economic efficiency.”

The current challenge for Trump is whether he can deliver a better form of health care which is left purely to the market and which excludes as much regulation as possible. American people see this as Trump searching for a black cat in a dark hole that is not there. At the same time, the real agenda has now been made explicit: the elimination of the administrative state is the elimination of the architecture of constitutional social democracy. The elimination of constitutional social democracy will leave the American people in a legal and political void. In this void, it is the plutocrats who will rule without restraints of the rule of law. In short, the approach of current leaders seems to be in the direction of government of the plutocracy, for the plutocracy, by the plutocracy.

Simultaneously, we have the looming Russian scandal. In Russia, we have a form of governance by, of and for the oligarchy. In this context, there are no real Russian state interests, there are the interests of the oligarchy represented by the chief oligarch. In the US, the struggle to destroy the administrative state challenged basic values that are irrelevant to the plutocracy. It seems that in the future, if greedy leaders succeed, there will be no foreign policy representing state interests and values, there will be plutocratic and oligarchical interests done with a handshake and a wink. In this sense, the only conflicts between Russia and the US are the plutocratic and oligarchic interests and not the broader framework of values of the social democratic constitution and the UN Charter. If self-serving interests win in destroying the social democratic state, we must be prepared for governance that sidelines ethics and morality and we will join the Russian oligarchs in representing a form of international influence also devoid of ethics or morality. This would imply a farewell to the most fundamental values of governance and accountability. Indeed, the demise of the Bill of Rights and human rights in general.

29. Conclusion

This paper has tried to stress that, without a constructive role for lawyers in the global economic process, we are doomed to repeat the failures of flawed market theory and the commitment to myopic, narrowly formulated principles of economic efficiency. Law thus far, has served to provide effective advocacy and flawed scholarship to sustain market

fundamentalist myth. Here it would be useful to record the support of Stiglitz to repudiate this short-sighted professional blunder. According to Stiglitz, “Basically, the call is to restructure the legal and regulatory foundation of globalization to better reflect the teachings of economic science as opposed to free market ideology. Institutions need to be structured and to be more democratic and more resistant to special interest influences. Constituencies that have little power or voice in globalization need to be heard to assure a more nuanced, culturally sensitive and politically sustainable set of globalization policies. States that are exposed to full globalization must have adequate social, physical, and regulatory infrastructure in place to allow markets to thrive to the maximum extent possible. Most importantly, the world appears to be woefully under-educating its human resources.” This last point stresses the salience of human capital, the importance of education in cultivating human capital and the tragic losses to humanity by educational policies that conspire to under-educate them as a condition of fictitious market efficiency.

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Notes

1. Milton Friedman, *Capitalism and Freedom* (Chicago: University of Chicago Press, 1962).
2. Kwame Nkrumah, *Neo-Colonialism: The Last Stage of Imperialism* (New York: International, 1966).
3. Theodore H. Moran, *Multinational corporations and the politics of dependence: Copper in Chile*. (Princeton: Princeton University Press, 2014).
4. James Rickards, “Repeal of Glass-Steagall Caused the Financial Crisis” *US News* August 27, 2012 <https://www.usnews.com/opinion/blogs/economic-intelligence/2012/08/27/repeal-of-glass-steagall-caused-the-financial-crisis>
5. Pascal van Griethuysen, “Money and Financial Markets”, Presentation, Dubrovnik, 2017. http://www.worldacademy.org/files/iuc_feb_2017/presentations/Presentations/Feb_2/feb2-session3-pascal-van-hcr.ppt
6. Ibid.
7. Ibid.
8. Winston Nagan, “Introduction to the New Paradigm of Political Economic Theory,” *Eruditio* 2, no. 1 (2015): 58-63.
9. Gail Arch, “Microfinance and development: Risk and return from a policy outcome perspective,” *Journal of Banking Regulation* 6, no. 3 (2005): 227-245.
10. Karl Polanyi, *The Great Transformation* (Boston: Beacon Press, 1967).
11. Orio Giarini, Ivo Šlaus and Garry Jacobs, “Human Capital,” *Cadmus* 1, no. 4 (2012): 4-7 <http://cadmusjournal.org/node/132>
12. International Commission on Peace & Food, *Uncommon Opportunities: An Agenda for Peace & Equitable Development* (London: Zed Books, 1994), 86 <http://www.icpd.org/UncommonOpp/CHAP04.htm>
13. ICPF, *Uncommon Opportunities*.
14. Winston P Nagan & Valeen Arena, “Towards a Global Comprehensive Context-Driven and Decision-Focused Theory and Method for a New Political Economy,” *Cadmus* 2 no. 2 (2014): 80-97.
15. On the issue of political economy, human rights values, and the idea of justice, see, Winston P. Nagan, “Human Rights, Liberty & Socio-Economic Justice: Economic Theory and the Ascent of Private Property Values,” *Cadmus* 1, no. 2 (2011): 35-54.
16. The Associated Press, “Oxfam: Richest 1 percent sees share of global wealth jump” *Gainesville Sun* January 19, 2015 <http://www.gainesville.com/news/20150119/oxfam-richest-1-percent-sees-share-of-global-wealth-jump/1>
17. Joseph E. Stiglitz, *Globalization and its discontents* (New York: W.W. Norton, 2002).
18. Robert D. Putnam, “Bowling alone: America’s declining social capital,” *Journal of democracy* 6, no. 1 (1995): 65-78.
19. Paul Kens, *Lochner v. New York: Economic Regulation on Trial* (Lawrence: University Press of Kansas, 1998).

Revisiting our Evolutionary Path: The Search for Holistic Education in a Fragmented World

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Abstract

When the World Academy of Art & Science (WAAS) was founded, it sought to address the gap between science and society, or rather the apparent unwillingness or inability of scientists to address their responsibilities as important members of society. This problem is related to the growing disparity between tool making and symbol making, those ancient skills that brought humans to the highest stage in the evolutionary process (at least until now?). Symbols—language, mathematics, graphics and other pictorial and linguistic representations, as well as clothing, hairstyles, etc.—when used to establish social rank, may serve to give legitimacy to the current social order or may serve to criticize and change it. Reincorporating science into society would require that scientists, as well as every member of society, recognize this. This would require an educational system that would give equal emphasis to tool making and symbol making, and this would help students to understand how society is a product of both of these processes.

[Professor X] was a mathematician who liked to think of himself as a philosopher, though this was professionally dangerous to admit.

— **James Gleick**, *Chaos: Making a New Science*, p. 65

1. Introduction

James Gleick's comment shows just how far we have come from the Ancient Greek view of knowledge and education, from a culture in which philosophy was the beginning and end point of all learning, in which art and science were instruments in the quest to understand the meaning of life. We now must believe that science is the master of all knowledge and that philosophy and art are interesting hobbies for those so inclined, but not to be taken seriously as a real source of knowledge.

This is not to denigrate in any sense the enormous increase in knowledge, especially of the material world, provided by science over the years, especially since the Renaissance, but many observers of our current global culture are questioning whether there might have been a critical sacrifice of our spiritual being along the way to this material progress. Artists, especially writers and philosophers, have been asking this question for many years now, (Mishra 2017) but it was the eruption of protest in the sixties that illustrated how far into society this dilemma had reached. In 1968 alone, protests by young people extended from Beijing to

Prague to Paris and Chicago, demonstrating that the political economic divisions between capitalism and communism were not the main issue. And these protests were not violent; they were not terrorist attacks on the system, though they brought forth substantial repression from the established centers of power in these varied social systems. Indeed, these were emotional and spiritual protests against the alienating impact of non-democratic control over the lives of everyday people provided by the extension of deterministic science and technology deep into our global culture. For example, as John Taylor Gatto (1990) had declared,

Schools [in the USA] were designed by Horace Mann and Barnard Sears and Harper of the University of Chicago and Thorndyke of Columbia Teachers College and some other men to be instruments of scientific management of a mass population. Schools are intended to produce through the application of formulae, formulaic human beings whose behavior can be predicted and controlled,

and

Lives can be controlled by machine education but they will always fight back with weapons of social pathology—drugs, violence, self-destruction, indifference. . . [etc.]

We may view science and technology as extensions of our tool-making capacity, something which archeologists and evolutionary biologists have given great importance to. But human beings are also symbol-making animals (Burke 1961, 1968a, 1968b, 1969a, 1969b), something, which, among other things, has also made the continued development of our tool-making capacity possible. Symbol making and using are much more than a means for facilitating the extension of technology, however. They are also very important in maintaining the social order, necessary for our survival. This is an aspect of education that has been neglected in our rush to improve our ‘tools’.

2. Culture as Education

Education begins at birth. Its first stages are an introduction into one’s culture. Culture is the ancient survival response of human beings to the physical and social environment in which we find ourselves. But it is not just a linear reaction because we ourselves have always participated in creating even our physical environment, as it appears to other species (Lewontin & Levins 2007). Culture is an attempt to formulate moral rules of behavior and the social roles to carry them out. This enables cooperation among individuals, which we Homo sapiens have long discovered is the means of survival in the Darwinian world in which we find ourselves. We have done this as a result of our reasoning and our ever more sophisticated means of communication, something which has allowed us to switch our evolution in the food chain from prey to predator (Sussman 2008, Sahlins 2008).

Therefore, in order to explain human behavior it is necessary to understand the relationship between what we are thinking and what we are doing. This is something that anthropologists have always known, of course, since they have often been working in cultures different from their own where the taken-for-granted rules and roles were different from their own. The

creation of culture is an ongoing process, not only for the individuals who are born into a culture but also for all of its members young and old. This is because of the fact that the social and physical environments are constantly changing. They are changing in large part owing to the changes in knowledge that a culture's members themselves create because of their human capacity to reason and communicate.

“Science has gradually sought to assert itself as the only true source of knowledge about social reality.”

Science is a product of this dialectical process. It is the latest stage in the evolution of knowledge. Science has its own evolutionary trajectory, as Thomas Kuhn described in his classic study *The Structure of Scientific Revolutions*. This book was unsettling to many scientists as it upset their conventional view of science as an incremental, linear process of accumulated and verified knowledge. It was something of a cultural shock because it suggested that human beings not only discover but also create scientific knowledge, which is then subject to human misunderstandings and revision, making it not unlike other human endeavors to understand and act in the world. An astrophysicist friend suggested that scientists do indeed solve puzzles of nature, but in so doing they discover many more things that they do not know and in the process constantly expand the overall size of the puzzle.

This has had the result of shaking somewhat the almost religious-like belief in the certainty of scientific knowledge about nature. This may not be all bad because the effort to apply this belief with certainty to human society has had even more unsettling effects. In other words, science plays a social, symbolic role in culture. Science has been very successful in controlling nature and providing economic benefits to its users. As a result, it has gradually sought to assert itself as the only true source of knowledge about social reality similar to its role in understanding nature, ignoring the role played by alternative forms of human consciousness in organizing human behavior. Or rather one might say that society has allowed science to monopolize human consciousness so that the role of culture in organizing human cooperation would be defined only in scientific and engineering terms, ignoring art and philosophy as possible important contributors to this process.

Not that science has not and does not contribute to our knowledge about the human social order. It is simply that scientific knowledge about society is not an end in itself, as many scientists might appear to believe. It forms part of the moral and philosophical system that judges how to use this knowledge, i.e., that judges whether any existing social order should be maintained at any expense, a position usually held by the more privileged strata in any society, or should lead to changes, often the position held by the less privileged members in a society. Scientists and engineers proclaim themselves to be value-free. Yet they also have moral obligations. They are, especially as scientists, also members of society, and are not divorced from and/or above it. Most importantly, they must evaluate how and where their scientific knowledge is to be dispensed, especially the form in which this information is to be

presented. This, of course, has nothing to do with the separate issue of their value-free stance in creating this knowledge. In the process of reflecting on the uses of the knowledge they create, they could learn to recognize both its symbolic and instrumental uses.

“There is a huge informational gap between the highly specialized social and natural scientists and everyday citizens, which obstructs the exercise of democracy in the modern world.”

At the same time, positivist *social* scientists see no significant difference between society and nature and believe that the same epistemological and ontological assumptions can be applied to both. Thus, they use a sophisticated set of abstractions to communicate their theories and research findings. They do this in order to maintain their particular position in the social and/or professional ‘food chain’. These sophisticated abstractions would, however, be quite inappropriate if these scientists were to believe that everyone should be informed about any current injustices and/or tipping points in the social system that could be corrected through structural changes. Such a belief would require a much simpler form of communication, not unlike one used by advertisers, for example. In other words, *there is a huge information gap between the highly specialized social and natural scientists and everyday citizens, which obstructs the exercise of democracy in the modern world*. Somehow a revised educational system must confront this issue, if culture is to evolve and keep up with our advanced tool-making capacity.

Scientists, in other words, especially social scientists, are key players in *constructing* social reality, given that they have an enhanced understanding of how society is formed and reformed through feedback about the consequences, intended and unintended, of everyone’s actions in that society. How and to whom they communicate this understanding is not a value-free decision, or somebody else’s problem, which is a common response by scientists and engineers in today’s fragmented and highly specialized social world. It is everybody’s problem, especially as it is now revealed in the newly perceived holistic world presented by systems theory, structuralism, complexity studies, quantum theory, chaos theory, etc., where everything is seen to be connected to everything else. This is an insight that appears to be generally more acceptable to women than to men, if current research on the brain is to be believed (Gutenschwager 2017).

A rising educational level, especially among women, may explain in large part the reasons behind the Cultural Revolution that began in earnest in the 1960s (Roszak 1995 [1969]). Many commentators on Roszak’s book believe that this youthful revolution failed, perhaps because it was too idealistic. But cultural revolutions take a long time and their evolution into an organized and significant movement of people to change the world may take decades or even centuries. At present there is a substantial number of people who are ‘revolting’ by withdrawing, at least spiritually and morally, from modern society (Ray and Anderson 2000). These people, labeled by Ray & Anderson as ‘Cultural Creatives’, now (2008) amount to

70 million adults or a third of the adult population in the United States, with a likely similar number in Europe (Inglehart 1997). They were discovered quite by accident during many years of survey research and in-depth interviewing in the 1980s and 1990s, not only by Ray and Anderson but also by many other researchers mentioned in their book. Many of the Cultural Creatives do also participate in active demonstrations against corporate efforts to dominate and rule the entire world through trade agreements, financial manipulations and the like. All of this gives witness to the continuing importance of the Cultural Revolution in today's society.

“The deterministic scientists are understandably indifferent to the social and moral implications of their findings; they bring certainty to an uncertain world.”

At the same time there is a growing awareness that the *uses* of science and technology are as important, if not more important, as the actual discoveries of science itself. Many scientists are not prepared to consider themselves to be a part of this process, believing it to be ‘somebody else’s problem’: the political scientist’s, the sociologist’s or that of whomever, but not theirs. They confuse the effort to escape bias in their search for knowledge with the actual role played by that knowledge in society. Culture is the creation of rules and roles, something of concern to all members of society reached by those rules and roles. As the reach of science and technology has become more and more global, the process of creating modern culture now includes everyone on the planet.

It might help to consider two different ways that science may be understood in its application to society: as a deterministic endeavor or as a heuristic endeavor. The deterministic scientist believes that science allows us to discover the universal laws of nature, laws that control both living (including human) and non-living nature. In other words, for them, human behavior is not controlled by ever-changing human thought and intention, but by laws that are discovered by science and which therefore give to the scientist the privileged status of apparently knowing in advance what humans are going to do in the future, usually within some kind of evolutionary theoretical framework. The deterministic scientists are understandably indifferent to the social and moral implications of their findings; they bring certainty to an uncertain world. Since they attach no moral judgments to their scientific findings about society, they also enjoy all the social and material support of the ruling classes and thus, at the same time, fulfill their need for power, even if only vicariously (McClelland 1975). They are well within the ideological framework of modern society, a framework characterized by modern economics as some form of ‘survival of the fittest’, claiming, more or less, this as the proper scientific framework for understanding human society.

Heuristic scientists, on the other hand, believe that they are part of a collective philosophical effort not only to understand society but also to fulfill their moral obligations to make it a just and happy society as well. The word ‘heuristic’ derives from the Greek word “εὐρίσκω”, which means ‘to find’, and is also found in the English word “eureka”. In the case

of social science, heuristics can help society to reinforce philosophical ideas, such as those of Epicurus about the essence of happiness (Ypijakis 2013), or to understand better the meaning of Lord Acton's 1887 philosophical insight that "Power tends to corrupt, and absolute power corrupts absolutely" (Useem 2017, Owen and Davidson 2009). Science can also be used to discover often unanticipated consequences of intentional actions, using methodologies ranging from statistical analyses to mathematical model building. These findings do not suggest a deterministic social process but rather disclose important information that can be fed into a philosophical discussion and any consequent social and political decision-making process that seeks to avoid possible undesirable consequences. All of this is complicated by the unequal distribution of wealth and power, which may result in the withholding and/or distortion of scientific findings so that the democratic process is compromised. Thus all scientists play a crucial role in society with the power to expose important information to the public, but are sometimes at the risk of losing their financial and institutional support. Using a deterministic and/or value-free mask allows scientists to avoid this moral dilemma, though it does not disappear as a result, of course.

"Economics sees itself as a natural science trying to understand society, but without trying to understand human beings and how they actually construct society."

Unfortunately, we now have very few institutions for democratic participation at the global scale. In fact, every technological advance requires a period of years, if not decades or centuries, in order for culture to be reorganized to accommodate those advances. This was true of the technological innovations that allowed the domestication of plants and animals which produced the surplus of food necessary for urbanization to occur. It required hundreds of years before the Ancient Greeks were able to establish institutions for managing society at a new scale. Their cultural innovations are still part of our ideological tool kit today, even if they have become increasingly ineffective, as technology has increased the scale and complexity of society over the past several hundred years.

This can also be seen in Hugo Boyko's statement during the founding moments of the World Academy of Art and Science:

[Technology] is an example of how the tempestuous technical development tends to throw mankind off its psychological equilibrium and possibly to destroy it physically (Boyko 1961).

In other words, the dialectic between consciousness and behavior that produces a culture is neither a mechanistic nor even a very efficient process. One reason for this is that those who benefit either materially or psychologically from a possibly outdated view of reality will use their executive powers to bias communication and forestall an awareness that would keep up with changes in the 'real' (material) world. It's also true that average people do not change their belief systems very easily, something that is true of scientists as well, as Kuhn

demonstrated in his book. Such change often requires a profound effort, as belief systems are as much emotional as they are rational.

3. The Role of Science in Society

The actual role of social, and sometimes natural, science is not only to understand, but also to construct society. This can best be seen in the social science of economics. In order to present itself as a science, economics has had to make a series of normative assumptions that it never examines empirically, but takes for granted, as if everyone in the world already believed them to be true. The most glaring of these is the assumption that everyone pursuing his own selfish interests will produce the best common good. This may be proven mathematically but unfortunately not empirically, unless the empirical facts are so carefully chosen and/or doctored as to make it appear to be true. So much has been written about these and other shortcomings of economics as a social science that it is hard to believe that it is still believed to be a creditable approach to understanding, let alone constructing human society, except somehow in a heuristic manner (Schumacher 2010 [1973], Harvey 2005, Magnuson 2007, Keen 2011, Quiggin 2010, Perelman 2011, Smith & Max-Neef 2011). Among other things, economists substitute the market for true democracy, perhaps because true democracy is so rarely seen, but also because democracy is a much more difficult and complex social phenomenon to study.

There are no human beings in economic theory except the caricature, the 'economic man'. Thus, there is no consciousness and there are no intentions outside of this normative formulation; there are only mechanistic causal relationships. Thus there is no way to judge anything in an economized society outside of monetary values; there are no moral values. Economics sees itself as a natural science trying to understand society, but without trying to understand human beings and how they actually construct society. Ordinary people do this with values that do, of course, include money, but actually also much more. Economics enters this process of helping to create culture with only its 'Homo economicus' vision of the human being. This vision it seeks to *impose* on society by persuading through symbolic techniques that this is the only proper way to view oneself and others in the Social Darwinian world we inhabit. It is a heartless, predatory world that economists have helped to construct, creating profound alienation that the Cultural Revolution is seeking to correct.

Economics, based on Newtonian physics, can be useful in pointing out the sometimes-unintended consequences of our intentional actions, especially those influenced by the normative presuppositions of economic theory. But this is not sufficient for providing moral guidelines, inadvertently perhaps, for human society, or for any other living system, for that matter. Increased wages, for example, do not result in speculation, but inequitable distribution of wealth does. Profits from speculation may be a necessary evil, not an indication of a healthy, productive economy. Economics, as we claim, is not an empirical science but rather an ideology that is active in constructing society by persuading people to act in specific ways, but without including any other moral values except greed and envy. Policy recommendations in this framework are not based on empirical science but rather on this ideology.

So why is economics so important in today's society, including in academia? It is supported because it plays an important *symbolic* role in legitimizing and justifying the position of the ruling class, a class that uses both technology and symbolic means to maintain its controlling position in the social hierarchy (Ryan 2017). Even other natural scientists are powerless to confront this symbolism, both because their education, absent philosophy, has ill prepared them to understand this problem, and because their very livelihood depends on not challenging this social hierarchy. This is true even though one may realize that the natural world itself is being destroyed as a result of the shortsighted understandings prevalent in the idea of the 'market' (Commoner 1966, 1972, 1990).

This is not to argue that economics should be eliminated as a holistic social science, simply, it should not govern and dominate the system of moral values on which the social system is constructed. It should constitute a heuristic science, offering insights on the likely consequences of various courses of action taken by social actors who might or might not subscribe to the current ideal of individual rationality and egocentrism.

One more recent holistic scientific effort to understand society is through the use of chaos theory. Chaos theory refers to non-linear dynamic systems, not unlike those referred to in earlier uses of systems theory. It has been very useful in explaining events in nature that do not lend themselves to explanation within the traditional Newtonian framework of reductionist, linear, and reversible mechanisms (Gleick 1987). Here a whole range of events in nature, such as sudden moves from order to disorder or its opposite, can be understood as a product of thresholds that move a system to a new state, otherwise unforeseeable in a simpler linear framework.

On the positive side, chaos theory, systems theory and complexity theory are very useful in shifting attention to a more holistic framework. They must also, however, like other efforts to apply natural science theory to society, arrive sooner or later at the same point at which economics has now become stalled, thus revealing their *social and symbolic* nature. In other words, they may be seen symbolically as ideology in the deterministic sense of the word. And this has to do with the role of consciousness in constructing the social world. Thus, any social finding established through the use of natural science methodologies will enter the consciousness of the members of society making it possible for them to change the initial conditions of the system, i.e., their thoughts and intentions, such that the outcome will be different from the prediction in any model, mathematical or otherwise. The Cultural Revolution we are (perhaps dimly) perceiving as going on in the world today is nothing more than an effort to change the initial conditions of the social world we inhabit.

4. Education for a Democratic Society

Therefore, if we wish to change the initial conditions of the world system of thought, i.e., the moral and intellectual values governing education, we should hopefully see a change in the systemic outcomes. That is, if we believe in the idea of democracy, then we must educate our children to understand how the social world is constructed. Alongside the current emphasis on tool making, we must better reinforce our understanding of symbol making,

and the manner in which these symbols are used to condition our thought and thus create the social world we all inhabit.

Ruling classes throughout the ages have always sought to exercise control over the symbol systems used to create society. Alexander, the Great, sought to do this, for example, when he wrote to Aristotle begging him not to make public the philosophical understandings he had about society. Aristotle's response was not unrelated to the symbolic use of mathematizing in current economic discourse. He replied to Alexander that the people did not understand what he was saying in any case, so there was no need to worry. Immanuel Kant apparently said the same thing to the King of Prussia regarding his own philosophical insights (Theodorides 1981, p. 113).

Education is the means currently used for embedding the ruling ideology of our historical period (Ryan 2017). This is accomplished in the schools and via the mass media. Meanwhile, because of the proclaimed value of democracy, it is now seen as necessary to educate everyone in society so that they might all participate in political decision-making. Thus, education through high school is free in most of the industrialized countries in the world, and at the university level in many, though not all. However, this education is directed to a large extent to tool making, that is, to technology and to the skills and knowledge necessary to participate in the technological society. Very little emphasis is given to the character and use of symbols in creating society. Literature, theater and art are only of secondary importance in this educational system, and students emphasizing these skills know that they are destined to second-class citizenship in later life. Not that even tool-making skills are at this moment a total guarantee of employment in the turbulent world of our currently decaying economic system. Still, hopes must be placed somewhere, and science and engineering still seem to offer the greatest employment opportunities.

What would an educational system more geared to democracy look like? Needless to say it would give equal emphasis to both tool making and symbol using skills. Anthropology and psychology would play a key role in such a system. Students would learn how societies are created and maintained through the use of symbols of all kinds: through language, art, theater and literature, clothing and hair styles, body language, the uses of education, etc. They would be taught to see the relationships between thought and behavior, between how we are taught to perceive the world and how we learn to behave in such a world. They would learn how these meanings are taught from the very first moment of life by our parents and/or their surrogates, and how these constitute our culture, with often significant differences in these basic moral and emotional meanings found throughout the world. They would learn that these meanings are couched in terms of good and evil and accompanied by deep emotional feelings, and with greater or lesser tolerance to other cultural systems, depending upon how they are taught. They would also learn that science and engineering do not replace this relativity, but become a part of it with all the symbolic means at their disposal. Their success is not just symbolic, however, as they seek to replace everything human with robots, thus making all this discussion redundant. But, then, that is what the Cultural Revolution is all about!

Students would also be taught to appreciate the importance of history as a means for understanding how thoughts, beliefs and their associated behaviors have sometimes misled people in the past, resulting in the breakdown of cultures and whole social systems. This is not a deterministic process and each experience illustrates a somewhat unique situation. What is important is the recognition that symbol systems play a crucial role in convincing people to act in certain ways, often long past the time when those behaviors are appropriate to maintain the system. Here the study of art, literature and theater can be useful in illustrating how this dialectic actually works, showing how symbols have played a critical role in supporting and/or criticizing the system existing at the time. Thus, in addition to the present emphasis on tool-making skills, reformed education would help to illustrate how this emphasis has conditioned modern social reality and has left little room for society to adjust, in order to regain a semblance of humanity.

As not all symbols are bound by the highly specialized nature of tool-making knowledge, they would allow a more holistic perception of social reality, where, as seen in the quantum and chaos worldview, everything is connected to everything else. This may also be more compatible with the female brain, as mentioned above, which is why symbolic reality is more likely to be feminine based. In other words, symbols are closely connected to the social hierarchy and to judgments about its appropriateness at any given time in history. This appropriateness has to do with the moral values of the time, as well as with the apparently timeless ability of different social systems to somehow survive within their natural constraints. Humans, in other words, are seen here as partners of nature, rather than their lord and master, which is a too common misperception that the successes of science and technology in controlling and exploiting nature have sometimes fostered.

5. Conclusion

We live in a fragmented world, held together by the forces of the ‘market’ and the demands of technology, neither of which offers much emotional or moral solace. Hence the widespread indications of social pathology: drug abuse, suicide, divorce, child abuse, pornography, etc. There is no philosophical framework to speak of, to address these problems and to bring some unity to society. Education could fill this gap, but it would require a major shift from an emphasis on tool making in the current western model to a more holistic one that would give equal emphasis to symbol making and using. Here we are talking about art and literature, about theater and the proper use of aestheticism, about a closer contact with nature, and ultimately about the reintroduction of philosophy into both academia and everyday life. Here we would stop dividing the world into them and us, and allow everyone to express their thoughts about the meaning of life in a true democratic manner. This was the spirit of life within the ancient agora, which should now be extended to all members of society and not just propertied men. This would require a major effort to educate all human beings about the complexities of modern society. It would also mean using symbols to accomplish this goal rather than using them to establish one’s place in the academic ‘food chain’, as dictated by the spirit of the ‘market’ so common in academia today.

The development of technology has extended way beyond the ability of society to adjust its institutions to maintain some semblance of democracy, the ideal that is still part of the vocabulary of modern and even postmodern human beings in today's fragmented world. The disillusionment of today's electorate with the often-distorted processes of representative democracy has already given rise to major social unrest. The restricted involvement of scientists in confronting this problem and their belief that it is somebody else's problem may also have deleterious effects on science itself, as the recent marches for science illustrate. In other words, today's social problems are everybody's problems; our fragmented perception of life must become more holistic if our children and grandchildren are to enjoy a stable and productive future.

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Bibliography

1. Boyko, Hugo (1961), *Science and the Future of Mankind*. Netherlands: Dr. W. Junk, Publishers. (Quoted in "The Need for a WAAS, History")
2. Burke, Kenneth (1961), *Attitudes Toward History*. Boston: Beacon Press
3. _____ (1968a), *Counterstatement*. Berkeley, CA: University of California Press
4. _____ (1968b), *Language as Symbolic Action: Essays on Life, Literature, and Method*. Berkeley, CA: University of California Press
5. _____ (1969a), *A Grammar of Motives*. Berkeley, CA: University of California Press
6. _____ (1969b), *A Rhetoric of Motives*. Berkeley, CA: University of California Press
7. Commoner, Barry (1966), *Science and Survival*. NY: Viking Press
8. _____ (1972), *The Closing Circle: Nature, Man and Technology*. NY: Bantam Books
9. _____ (1990), *Making Peace with the Planet*. NY: Pantheon Books
10. Gatto, John Taylor (1990), "Why Schools Don't Educate". The Natural Child Project. (Speech accepting the N.Y. City Teacher of the Year Award, June 31, 1990)
11. Gleick, James (1987), *Chaos: Making a New Science*. NY: Penguin Books
12. Gutenschwager, Gerald (2017), "Predation, Gender & our Anthropological Oxymoron", in *Eruditio* Volume 2, Issue 3, April-May, pp. 80-93
13. Harvey, David (2005), *A Brief History of Neoliberalism*. Oxford University Press
14. Inglehart, Ronald (1997), *Modernization & Postmodernization: Cultural, Economic and Political Change in 43 Societies*. Princeton, NJ: Princeton University Press
15. Keen, Steve (2011), *Debunking Economics—The Naked Emperor Dethroned?—Revised and Expanded Edition*. London & NY: Zed Books
16. Lewontin, Richard and Richard Levins (2007), *Biology Under the Influence: Dialectical Essays on Ecology, Agriculture, and Health*. NY: Monthly Review Press
17. Magnuson, Joel (2007). *Mindful Economics: How the U.S. Economy Works, Why It Matters, and How It Could Be Different*. NY, London, Melbourne, Toronto: Seven Stories Press
18. McClelland, David C. (1975), *Power: The Inner Experience*. NY: Irvington Publishers
19. Owen, David and Jonathon Davidson (2009), "Hubris Syndrome: An Acquired Personality Disorder? A Study on U.S. Presidents and U.K. Prime Ministers Over the Past 100 Years" in *Brain*, Vol. 132, Issue 5 (May), pp. 1396-1406
20. Mishra, Pankaj (2017), *Age of Anger; A History of the Present*. New York: Farrar, Straus and Giroux
21. Perelman, Michael (2011), *The Invisible Handcuffs of Capitalism: How Market Tyranny Stifles the Economy by Stunting Workers*. NY: Monthly Review Press
22. Quiggin, John (2010), *Zombie Economics: How Dead Ideas Still Walk Among Us*. Princeton & Oxford: Princeton University Press

23. Roszak, Theodor (1995), *The Making of a Counterculture: Reflections on the Technocratic Society and Its Youthful Opposition*. Berkeley, CA: University of California Press
24. Ryan, Howard (2017), "Who Is Behind the Assault on Public Schools", in *Monthly Review*, Vol. 68, No. 11 (April)
25. Sahlins, Marshall (2008), *The Western Illusion of Human Nature: With Reflections on the Long History of Hierarchy Equality and the Sublimation of Anarchy in the West, and . . . Conceptions of the Human Condition (Paradigm)*. Chicago, IL: Prickly Paradigm Press
26. Schumacher, E.F. (2010 [1973]), *Small Is Beautiful: Economics As If People Mattered*. NY: Harper Perennials, Second Edition
27. Smith, Philip B. and Manfred Max-Neef (2011), *Economics Unmasked: From Power and Greed to Compassion and the Common Good*. Foxhole, Dartington, Totnes, Devon: Green Books
28. Sussman, Robert W. (2008), *Man the Hunted: Primates, Predators and Human Evolution*. Expanded Edition. Boulder, CO: Westview Press
29. Theodorides, Harambalos (1981), *Epicurus: The True Perspective on the Ancient World* (In Greek). Athens: Estias Press.
30. Useem, Jerry (2017), "Power Causes Brain Damage" in *The Atlantic*, July-August
31. Yapijakis, Christos (2013), "Ethical Teachings of Epicurus Based on Human Nature in the Light of Biological Psychology". 23rd Congress of Philosophy, Athens, 2013

High-Level System Change: Protecting Business and Society

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Abstract

Over the past 15 years, sustainability has become mainstream in the corporate and financial sectors. But environmental and social conditions are declining rapidly in many regions. Nearly all corporate and financial sector sustainability strategies are focused on company-level activities, such as unilaterally mitigating negative environmental and social impacts. But flawed economic and political systems make it impossible for businesses to mitigate about 80 percent of negative impacts. These impacts often return to harm companies, for example, in the form of market rejection, lawsuits and reputation damage. System change is the most important sustainability issue. Protecting business and society requires substantially shifting the focus of corporate sustainability strategies from company change to system change. A growing number of collaborative system change efforts are being implemented. Most focus on specific issues, sectors or system flaws. They frequently are ineffective because they do not use a whole system approach. All major aspects of human society are connected. Root causes, key leverage points and most effective solutions often lie outside of issue-specific areas. Climate change, economic reform and other complex issues can only be effectively addressed through a whole system approach. This paper summarizes important economic and political system flaws and describes a collaborative, whole system approach for engaging the corporate and financial sectors in system change.

Human systems have evolved for millennia, and will continue to do so. Changing current economic and political systems (high-level system change) can seem difficult or impossible, as it did to people in the past before their systems collapsed. Modern economic and political systems were developed from a reductionist perspective that ignores much of reality. These well-meaning, but unintentionally destructive systems force all companies to degrade the environment and society. If businesses attempt to voluntarily mitigate all negative impacts, they will put themselves out of business long before reaching full impact mitigation. As companies are forced to harm society, negative impacts increasingly return to harm them, often in the form of reputation damage, lawsuits, market rejection, and ultimately reduced profitability and shareholder returns.

In the political area, political parties divide citizens and prevent them from working together on their massive areas of common interest, such as protecting life support systems and society. Our flawed, unintentionally destructive economic and political systems inevitably

will evolve. The only options are voluntary or involuntary change. Nature and reality force all flawed human systems to change, as occurred with the American and French revolutions, end of slavery in the US, and fall of communism in the Soviet Union.

Flawed systems usually change involuntarily through collapse. Collapse of current systems would bring unprecedented suffering and disruption. Voluntary high-level system change is our best option by far. It also is the most complex challenge facing business and society. Humanity is tremendously creative and talented. If we devote enough time, attention and resources, we can evolve our systems into sustainable forms. This paper summarizes how to achieve this goal and the benefits of doing so.

1. Solution

The implied economics of nature are nearly infinitely more sophisticated than human economic and other systems. Nature enables nearly all plants and animals to reach their fullest potential without inhibiting the ability of future generations to survive and prosper. Nature produces no waste, lives on renewable resources, equitably distributes resources, decentralizes production and equally values current and future generations. As parts of nature, we have the innate ability to match its immense coordination, symmetry, sophistication and true long-term prosperity.

Effectively emulating nature requires expanding our perspective from the individual to the whole system. Nature implicitly operates from a whole system perspective. All aspects are balanced and taken into account. The wise Founders of the US thought from a whole system perspective. Promoting the general welfare is the most important purpose of government stated in the Constitution. It encapsulates all other stated purposes. The Founders understood that the well-being of the whole system should take priority over individual well-being, because individuals ultimately cannot prosper if the larger systems that support them are not stable and preferably thriving.

Uniting and empowering citizens is another essential requirement for high-level system change. Citizens collectively are the most powerful force in society. In his Farewell Address, George Washington warned that vested interests would use political parties to divide and disempower the public. Taking away the people's ability to rule and protect themselves might appear to benefit vested interests. But degrading the environment and society ultimately harms business, investors and other vested interests. United, well-informed citizens will focus the economy, government and society on maximizing the long-term well-being of society.

When citizens are divided and disempowered, as they are in the US and many other countries, large companies and the small group of wealthy citizens who own most business assets are among the most powerful segments of society. As these groups better understand that flawed systems severely threaten business and society, they can use their substantial influence to expedite system change. In summary, emulating nature, thinking from a whole system perspective, uniting citizens, and engaging the corporate and financial sectors are essential components of evolving economic, political and other human systems into sustainable forms.

2. Implementation

The book *Global System Change: A Whole System Approach to Achieving Sustainability and Real Prosperity* describes essential economic, political and social system changes. It discusses four levels of system change. The lowest level is unilateral system change. This mainly involves internal organizational changes. Mid-level system change refers to systemic changes at the sectoral, stakeholder or environmental/social issue levels. High-level system change focuses on evolving overarching economic, political and social systems into sustainable forms. Global system change refers to evolving the highest level whole system that humans influence—the whole Earth system and its sub-element, human society.

High-level system change includes international, national and state-level, specific and broad economic, political and social system changes. As noted, high-level system change is essential because flawed economic and political systems compel all companies to degrade the environment and society. Very generally speaking, companies can voluntarily mitigate about 20 percent of their tangible and intangible, short-term and long-term, negative environmental and social impacts in a profit-neutral or profit-enhancing manner. Beyond this point, costs usually go up. If companies continue down this path of voluntary corporate responsibility, they will put themselves out of business.

No one intended that our economic and political systems would degrade and possibly destroy life support systems and society. Unintentional degradation results from myopia—failure to think and act from a whole system perspective. If we do not figure out how to evolve our systems into sustainable forms voluntarily, they will cause rapidly growing problems for business and society, and then collapse, causing even greater disruption and suffering.

There are several high-level system change efforts around the world, often focused on economic reform. These collaborations frequently are reductionistic, and therefore have limited success. They sometimes focus on addressing only one or a few system flaws, such as externalities or measurement of social well-being. In addition, the efforts often do not address all relevant issues and aspects of society, including political, media and public deception.

A whole system perspective is essential for achieving high-level system change. Collaborative groups initially should focus on high-level goals and all relevant aspects of the whole system. This enables groups to see root causes, systemic barriers, key leverage points and most effective solutions. A whole system perspective also enables groups to identify linkages and synergies. This can facilitate development of efficient and effective solutions that address or resolve multiple issues at once.

To illustrate, a high-level system change collaborative might initially focus on maximizing the well-being of current and future generations by applying the rule of law to businesses. The rule of law is a fundamental component of libertarian and other philosophies. Civilized society cannot exist without it. The rule of law says that individuals and businesses should be free to do what they want, provided that they cause no harm. The principle usually is effectively applied to individuals. They are held responsible through murder, assault and many other laws. However, the rule of law is poorly applied to businesses in many countries,

especially the US. Companies are not held responsible for causing extensive environmental and social degradation (i.e. harm).

Failing to hold companies fully responsible for negative impacts is a primary overarching economic and political system flaw. It places businesses in conflict with society. This is the specific mechanism that compels companies to degrade the environment and society, and thereby creates growing problems for business. Flawed systems make it impossible for companies to mitigate about 80 percent of negative environmental and social impacts and remain in business. Protecting business and society requires that systems be evolved in ways that hold companies fully responsible. This eliminates conflicts between business and society. It makes acting in a fully responsible manner the profit-maximizing strategy.

3. System Flaws

There are numerous economic and political system flaws that directly or indirectly fail to hold companies fully responsible for negative impacts (i.e. fail to apply the rule of law). Many are summarized below. Several US examples are used to illustrate system flaws, problems and potential solutions that exist around the world.

Externalities. Externalities are real, actual costs of producing, using and disposing of products and services that are not included in prices. Instead, citizens pay for these costs through increased taxes, healthcare premiums and other fees and/or reduced quality of life. This price distortion makes destructive products, such as fossil fuels, appear to be cheap, while low impact products, such as renewable energy, often appear to be expensive. To illustrate, the real cost of gasoline is far more than retail price. Extensive pollution, illness, premature death, traffic congestion, military and other costs result from the production and use of gasoline and other fossil fuels. Hiding these real costs in higher taxes and other out-of-pocket costs drives overconsumption.

Externalities essentially are subsidies for harmful products. They greatly increase total costs to society because citizens are paying to clean up problems, rather than prevent them. Externalities force companies to produce destructive products because these often are the most profitable when extensive product-related costs are externalized onto society. Incorporating externalities into prices holds companies responsible for negative impacts. This usually makes selling low impact, responsible products and services the profit-maximizing strategy.

Limited Liability. Individuals and small business owners are held fully responsible for harm imposed on society. But owner/shareholders of corporations often are not. Limited liability is a highly deceptive term. Liability and risk do not magically disappear. They are transferred, largely to taxpayers. Therefore, the far more accurate name for limited liability is transferred liability or taxpayer liability. With limited liability, taxpayers frequently are compelled to act as the owners of business on the downside by paying for harm caused by corporations. But they get none of the financial upside. In other words, limited liability is socialism on the downside and capitalism on the upside. A limited liability corporation is not a private entity. It is a grossly unfair quasi-public structure.

Beyond the gross financial injustice of limited liability, the structure severely degrades society. Flawed systems usually compel companies to pursue the profit-maximizing strategy. High-risk activities, such as producing synthetic chemicals and burning fossil fuels, often are the most profitable. But high financial risk usually limits engagement in activities with high profit potential. By transferring financial risk and liability to taxpayers, limited liability frequently compels companies to engage in the most risky and destructive activities. Under sustainable systems, large companies and their owners would be held fully responsible. Taxpayers would not cover the downside of private sector activities, unless they received fair compensation.

“Economic growth is not the ultimate goal. It is a means to an end. The ultimate goal is maximizing the long-term well-being of society.”

Time Value of Money. Modern economic and financial systems are heavily based on the concept of time value of money (TVM). TVM provides a good example of how the failure to think systemically severely degrades society. TVM says that things are worth more in the present than the future. This makes sense from an individual perspective, but not from a whole system perspective. TVM says that beyond about 50 years, people and the environmental resources needed to keep them alive have little or no value. This frequently compels business and political leaders to degrade life support systems and future generations. According to our suicidally flawed economic system, protecting nearly worthless future people and resources would be a foolish economic decision. A whole system perspective reveals the extremely irrational and destructive nature of TVM. We have no right to discount future generations and the environment they need to survive in. They are worth at least as much as we are, if not more. Like the implied economics of nature, sustainable economic systems would not discount future generations and resources.

Social Well-being Measurement. A common business saying is, what gets measured gets managed. The US and many other countries use economic and stock market growth as primary measures of success. But economic growth is not the ultimate goal. It is a means to an end. The ultimate goal is maximizing the long-term well-being of society. Economic growth measurements do not account for degradation of natural and other assets that are needed for human survival and prosperity. They also do not value critical non-financial services, such as parenting and volunteering, or account for important intangible factors, such as psychological health and happiness.

Economic growth largely measures growth in business sales. Most business assets are owned by a small group of wealthy investors. Focusing measurement on economic growth and shareholder returns places financial returns to a small group of wealthy citizens ahead of the survival of humanity and all other factors. It fails to hold companies responsible for causing extensive environmental and social degradation because this degradation is not

adequately measured and managed. A whole system perspective shows that we must begin to measure the endpoint, not the means to the end. Reversing environmental and social degradation and maximizing the long-term social well-being requires that we begin to focus the measurement and management of the economy, government and society on maximizing the actual, objective well-being of society.

Inappropriate Influence of Government. Only government can hold companies fully responsible for negative environmental and social impacts, and thereby make acting responsibly the profit-maximizing strategy. But government cannot hold companies responsible when it is unfairly influenced. Inappropriate influence by business and other vested interests occurs in many countries. In the US, three primary means of influence are campaign finance, lobbying and job rotation between business and government.

About 90 percent of federal elections are won by the candidate who spends the most. For over 100 years, campaign finance laws limited the ability of wealthy citizens and corporations to spend large amounts on elections. But recent Supreme Court rulings allow these groups to spend unlimited amounts. This gives them strong ability to influence or control elections and government. Dominating politicians' time with lobbying and rotating employees in and out of regulatory and other government roles also gives vested interests strong influence.

We do not allow people accused of crimes to give money to judges and juries or hold private meetings with them. But we routinely tolerate this inappropriate interaction between regulated entities (businesses) and regulators (government). Individuals can and usually would act responsibly in the absence of laws that require responsible behavior. But in competitive markets, companies often cannot do this. Flawed systems frequently force them to act irresponsibly when they are not held fully responsible. Therefore, it is far more important to effectively apply the rule of law to businesses than individuals. This only can occur when inappropriate business influence of government is ended.

Lack of Congressional Term Limits. The main Founders of the US, except Alexander Hamilton, absolutely did not intend to establish aristocracy in government. Rotation in office was common in the early US. But currently, Senators and Representatives often remain in office for decades, sometimes over half a century. This allows businesses and other vested interests to form long-term, inappropriate relationships with Congress. Incumbents have many funding and other advantages over challengers. This is a main reason why turnover in congress is extremely low. The will of the people only can be achieved in government through regular elections and rotation in office. Term limits are essential for democracy. Over 60 years ago, Congress initiated a Constitutional amendment that imposed term limits on the President. Democracy requires that term limits also be imposed on Congress.

Judicial Review and Lack of Judicial Term Limits. James Madison, Thomas Jefferson, James Wilson and many other US Founders intended the Judiciary to be the weakest branch of government, because it is unelected, and therefore farthest from the people, the ultimate authority established in the Constitution. Congress was intended to be the strongest branch of government because it is regularly elected, and therefore closest to the people. The Founders provided substantial details about the structure of the Executive and Legislative branches.

But they left much of the Judiciary undefined. Instead, the Founders empowered Congress to establish and regulate most aspects of the Judicial Branch.

However in 1803, the Supreme Court gave itself the power to interpret the Constitution and void executive and legislative acts that it perceives violate the Constitution, a power known as judicial review. But the Constitution does not give this authority to the Judicial Branch. The self-assigned power of judicial review made the Judiciary the strongest branch of government.

Regarding term limits, the Constitution does not establish specific judicial terms of office, as it does for the Executive and Legislative branches. Instead, it says that judges shall hold their offices during good behavior. Some Founders thought this did not confer lifetime appointments. It only meant that judges were required to maintain good behavior while in office. During the 1800s and early 1900s, Congress tried many times to restrict judicial review and impose judicial term limits. This shows that Congress has the power to take these actions. No constitutional amendments are needed.

Through campaign finance, lobbying and other inappropriate influence, vested interests can compel politicians to appoint strongly biased Supreme Court and other justices. These judges gave the vested interests who paid to appoint them even stronger control of government, for example, by voiding campaign finance laws. They also frequently failed to hold vested interests responsible for negative impacts by voiding or weakening laws that require responsible behavior. Returning control of the US government to the people requires that Congress exercise its strong constitutional authority over the Judiciary by restricting judicial review and imposing judicial term limits.

Electoral College. The US Electoral College was a compromise made at the end of the 1787 Constitutional Convention to appease slave and small states. The system makes people unequal by giving small state citizens more power than large state citizens when electing the President. It also compels presidential candidates to give unfair preference to swing states and sometimes allows losers of one of the most important elections in the world to win, as occurred in 2000 and 2016.

In addition, the Electoral College greatly facilitates election fraud by enabling fraudulent activities to be focused on a few swing states and electing the President through thousands of different county election systems, rather than one national system. Over 100 years ago, we ended another Constitutional compromise by replacing election of Senators by state legislatures with popular election. Returning control of government to the people requires that we complete the process by implementing popular election of the President.

Political Parties. The main Founders of the US, again except Alexander Hamilton, were greatly alarmed by the establishment of political parties. They did not want the new union divided into debating fractions. George Washington called political parties the worst enemy of elected government. Since the 1980s, wealth has been concentrated at the top of society, while life became more difficult for the vast majority of citizens, regardless of which party was in power. Political parties mislead citizens into thinking that they have two voting

options. But they largely do not. Politicians from both major parties mainly serve wealthy campaign donors.

“Maximizing the long-term well-being of society requires reestablishing democracy and abiding by our Constitution.”

Political parties are not mentioned in the US Constitution. But they often sit above politicians and control their voting. Politicians are supposed to obey and serve those who elect them, not political parties. The Republican and Democratic parties largely are controlled by vested interests. This inappropriate influence severely inhibits the ability of government to hold vested interests responsible for negative impacts. Returning control of government to the people requires greatly weakening the party system, in large part by ending vested interests' control of political parties.

Lack of Democracy. Democracy probably is the only sustainable form of government. It is based on the natural rights of equality and self-government. Democratic government is the vehicle through which citizens use their common wealth and power to protect their long-term common interests. The US Founders strongly supported democracy in principle (i.e. citizens equally control government). But they were concerned about democracy in practice, mainly because non-expert citizens are highly vulnerable to vested interest deceptions. Most people do not have the time needed to study complex environmental, social and economic issues, and then make well-informed decisions that maximize the long-term well-being of society. As a result, the Founders established the US as a constitutional republic.

The people were intended to equally control government by electing expert politicians who make well-informed decisions that broadly benefit society. But inappropriate influence of government has severely suppressed democracy in the US and many other countries. Government serves those who control it. It is not surprising to see phenomenal wealth and income growth among the small group that controls government. Maximizing the long-term well-being of society requires reestablishing democracy and abiding by our Constitution. True democratic government will protect society by effectively holding vested interests responsible for negative impacts.

Private Sector Money Creation. A nation's money supply can be created by the public or private sector. In a democracy, the money supply belongs to the people. When the private sector creates money through fractional reserve lending, citizens and government often pay interest to use their own money. In the US, this potentially costs taxpayers over \$500 billion per year (nearly half of federal individual income taxes). If citizens created the money supply through government, income taxes, consumer interest rates, and the national debt and deficit would be much lower.

With private sector money creation, the money supply is used in ways that maximize the wealth of bank owners and other investors. If citizens controlled the money supply through democratic government, it would be used in ways that maximize the long-term well-being

of society, for example, by investing in infrastructure, public higher education, and other beneficial purposes. Private sector money creation substantially harms citizens by unfairly concentrating vast amounts of public wealth at the top of society.

“Nearly all climate scientists who are not paid by energy and other companies say that humans are substantially contributing to global warming.”

Corporate Welfare. Broadly defined, corporate welfare includes all unfair transfers of wealth from citizen/taxpayers to large companies and the small group of wealthy investors who own most of their assets. In the US, at least several trillion dollars are transferred to these groups every year through many forms of corporate welfare. Large forms include externalities, limited liability, fractional reserve lending, and tax loopholes and injustices. Inappropriate influence of government creates extensive corporate welfare in the broader economy. Suppression of unions and other labor protections causes unfairly low wages and benefits. This facilitates concentration of wealth. Business controlled government often allows mergers and other anti-competitive actions that unfairly increase prices and further concentrate wealth. Corporate welfare greatly harms citizens and society. Democratic government would ensure that the public wealth is used to equally and fairly benefit all citizens.

Media Deception. Effective democracy requires that citizens receive accurate, useful information about the environment, economy and other major aspects of society. In today’s online world, media should be a primary vehicle for delivering this information. But the requirement to maximize shareholder returns routinely compels for-profit media to provide biased and/or inaccurate information. Allowing this type of media deception makes it difficult for citizens, through democratic government, to hold companies responsible for negative environmental and social impacts.

Business controlled media misleads the public in many ways. For example, when independent studies show corporate products and processes to be unsafe, companies often fund studies which say that products are safe, and then broadly publicize the studies through media. This misleads the public and reduces pressure to stop harming society. Biased media also often protects shareholder returns by manipulating citizens into blindly opposing regulations and government. Libertarian and other small government or anti-government philosophies frequently mislead citizens into opposing regulations that protect life support systems and society. This would be like turning citizens against murder, robbery and assault laws. Vested interests frequently argue that regulations restrict business freedom. But there is no freedom or right to cause harm in a civilized society. Therefore, regulations that prohibit causing harm do not restrict freedom or rights. Instead, they are an essential component of a sustainable, prosperous society.

Probably the most important and harmful media deception in the US and many other countries is perpetuating the civil war between conservatives and liberals. Radical media

often provides a nearly non-stop, hate-filled invective against the other side. This builds anger, hatred and division in society. It strongly protects shareholder returns by manipulating citizens into blaming problems on the other side, instead of focusing on the main causes of environmental and social degradation, such as corporate welfare and business control of government.

“The solution to feudalism, slavery and other unfair, unsustainable systems was not to incrementally improve them. It was to replace them with sustainable, fair systems.”

From 1949 to 1987 in the US, the Fairness Doctrine required major media outlets to provide both sides of controversial issues. By eliminating this requirement, business controlled government allowed media to mislead the public. To illustrate how deceptive media misleads citizens, nearly all climate scientists who are not paid by energy and other companies say that humans are substantially contributing to global warming. But many conservative citizens do not believe this. This is a perfect example of the Founders’ primary concern about democracy—the ease with which non-expert citizens can be misled.

Misleading the public about major problems and systemic solutions enables companies to avoid being held responsible for negative impacts, and thereby maximize shareholder returns. To protect society and establish democracy, major media must be required to tell the truth. Free speech is not an unrestricted right. Citizens’ right to self-government takes priority over vested interests’ ability to provide biased, destructive information. Democracy cannot exist unless citizens have accurate information.

Advertising. The focus on economic growth and shareholder returns often compels companies to seek regularly increasing sales. Advertising is a primary tool for achieving this. Advertising sometimes enhances society by informing citizens about useful products and services. However, it also frequently causes extensive negative impacts. To increase sales, ads often convey emotional, non-verbal messages which strongly imply that people’s value in society is based on appearance, wealth and/or possessions. This frequently sends people on fruitless quests to achieve life satisfaction through consumption. It distracts citizens from actions that actually provide satisfying lives.

Advertising drives materialism and the extensive environmental and social degradation that goes along with it. Advertisers largely are not held responsible for this degradation. Sustainable, democratic government would require honest media and advertising. Ads would honestly discuss product characteristics, value and other relevant factors. But emotionally manipulative ads that make people feel inadequate and compel them to buy products that they do not need would be restricted.

Economies of Scale, Free Trade and Competitive Advantage. These concepts often are promoted in ways that emphasize benefits and discount or ignore negative impacts. This can enable companies to avoid being held responsible, and thereby maximize shareholder returns.

Taking advantage of scale by centralizing production can provide certain benefits. But it also often concentrates wealth, degrades communities and causes other problems. Free trade can help investors and provide cheap products. But it also frequently harms labor, manufacturing, the middle-class and life support systems. Shifting production to regions with certain advantages can provide some efficiencies, but also cause many environmental, social and economic problems. Maximizing the well-being of society requires that these concepts be implemented through a whole system approach that accounts for all benefits, costs and negative impacts.

All of the above system flaws are connected. Addressing them individually would be reductionistic and ineffective. This approach could be thought of as making incremental adjustments to existing systems. History shows that this probably will not work. The solution to feudalism, slavery and other unfair, unsustainable systems was not to incrementally improve them. It was to replace them with sustainable, fair systems.

A whole system approach is necessary to effectively address system flaws. For example, incorporating externalities into fossil fuel prices (i.e. implementing accurate pricing that includes all real, relevant costs) would substantially lower total costs to society because citizen/taxpayers would be paying to prevent problems rather than clean them up. However, it also could disrupt the economy and harm low-income citizens if it is done in isolation. Effectively using the market system by implementing reality-based pricing must be done through a whole system approach that includes many coordinated systemic changes, such as ending inappropriate public wealth redistribution to the top of society (corporate welfare) and implementing true democracy.

4. Collaboration

Collaboration is essential for achieving high-level system change because the issue is so complex and far-reaching. No segment of society is powerful enough to change overarching systems. Several important aspects of high-level system change collaboration are summarized below.

National Focus. Nature implicitly operates under a largely decentralized economic system. As we emulate the immensely more sophisticated and sustainable systems of nature, many aspects of human society will become more decentralized. However, centralization probably will increase in certain areas when it is logical and effective to do so. For example, greater centralization probably would occur in areas such as protection of life support systems, enforcement of a global bill of rights, global security and peacekeeping, and exploration of outer space.

In our current unsustainable, heavily centralized society, the most important and impactful economic and political systems usually are established and managed at the national level. The system flaws discussed above often would be most effectively addressed at this level. As a result, most initial high-level system change efforts probably should be nationally focused.

Global system change (evolving the whole, interconnected system of human society into sustainable form) is the ultimate challenge for humanity. However, most power is wielded at

the national level. Once nationally focused high-level system change efforts progress, more international collaborative efforts can be established. As countries and regions refocus on doing what is best for all current and future citizens, instead of vested interests, humanity can increasingly focus on the ultimate goal—global system change.

Goals. Effective high-level system change should be informed and guided by the end state or desired outcome. Beneficial, non-disruptive evolution from current to sustainable systems will involve incremental adjustments to current systems, such as addressing the specific system flaws noted above. However, incremental improvements should occur in the context of a practical, whole system strategy, rather than be the focus or goal of high-level system change efforts.

A main purpose of high-level system change collaboration should be to develop plans and processes for achieving higher level goals. For example, system change experts within the collaboration might suggest a sequence of incremental, often simultaneous changes that achieve the high-level goal of applying the rule of law to businesses.

Conveners. Convening collaborative high-level system change efforts is one of the most important actions needed to engage the corporate and financial sectors in system change. Many companies are improving sustainability performance by collaborating at the sector level (mid-level system change). But there are limited opportunities to collaborate on evolving economic and political systems into sustainable forms. Establishing this type of collaboration is essential for achieving successful high-level system change.

Identifying the right convener for such a complex and far-reaching endeavor is critical. A prestigious academic institution with extensive business, sustainability and systems theory programs potentially could be an ideal convener. As a few highly credible corporations, business leaders, NGOs and other partners engage in the collaboration, many others will join.

Communication. Clear, compelling communication will be essential for successfully convening and managing high-level system change collaborations. Emphasizing specific system flaws could inhibit collaboration formation. System changes that potentially reduce profitability, such as addressing externalities or limited liability, could prevent businesses and their allies from joining. Emphasizing complex, often difficult changes, such as improving government, reducing media deception and uniting citizens, also could inhibit collaboration.

It would be more effective to emphasize how myopic economic and political systems unintentionally place business in conflict with society. This often forces companies to harm life support systems, employees, customers and all other aspects of society. Flawed systems cause large and growing problems for business and society. These systems inevitably will collapse if we do not change them first.

Widespread and rapidly growing environmental and social degradation strongly indicates that modern systems will change soon. This awareness can create a sense of urgency. It will help businesses and other important collaboration participants to realize that they are much better off taking a seat at the system change table and managing the process in a non-disruptive manner, rather than suffering the consequences of inaction.

Questioning systems that focus on maximizing economic growth and shareholder returns (instead of the actual well-being of society) could threaten companies, business leaders, politicians and other important collaboration participants. Making a strong business case for system change and providing practical, non-disruptive ways to achieve it are essential for engaging business and other parties in high-level system change collaborations.

“Successful high-level system change will focus on addressing the true enemies of humanity—our myopic thinking and the flawed systems that result from it.”

Facilitating high-level system change collaboration by emphasizing how flawed systems place business in conflict with society does not mean that complex issues will be ignored. Using a whole system approach probably is the only way to successfully achieve voluntary high-level system change. This means that all relevant issues and aspects of society must be addressed, including political reform, honest media, and uniting and empowering citizens to protect their common interests. However, these might be longer-term goals. To facilitate collaboration formation and provide benefits to participants, the initial focus might be on achieving quick wins.

High-level system change is the most important sustainability issue by far. Achieving sustainability and real prosperity is not possible without it. To illustrate, the UN Sustainable Development Goals (SDGs) discuss important environmental and social components of a sustainable society. But achieving the SDGs will be impossible without high-level system change. With few companies engaged in this work, an important quick win would be reputation enhancement. As it becomes widely known that high-level system change is the most important sustainability issue, those taking the lead on it will be seen as the true sustainability leaders and pioneers.

Non-judgment. Non-judgment is essential for successful high-level system change collaboration. No company, business leader, investment manager or politician intends to degrade life support systems and society. Flawed systems place business leaders and their allies between a rock and a hard place. If they do not place shareholder returns before all else, they might lose their jobs or their companies might go out of business. Flawed economic and political systems force good, well-meaning companies and leaders to frequently take actions that harm the environment and society. These people and organizations are not the enemy. Criticizing them for doing what flawed systems demand often is irrational and counterproductive.

Successful high-level system change will focus on addressing the true enemies of humanity—our myopic thinking and the flawed systems that result from it. The approach should treat all people with respect and assume that they mean well. Effective dialogue should give each person a chance to share their views and objectively consider other ideas. Some people might have harmful intentions. But they often will act responsibly under sustainable systems because this will be the most profitable and beneficial behavior.

Seek Common Ground. Another critical aspect of high-level system change collaboration is seeking common ground and working across the political spectrum. Differences between Republicans and Democrats, for example, largely are illusions perpetuated by vested interests. We agree on many of the most important issues in society. Nearly everyone would agree that we should protect life support systems (because failing to do so is suicidal), ensure true democracy (i.e. abide by our Constitution), use the public wealth to equally and fairly benefit all citizens, protect future generations, and apply the rule of law to businesses at least as well as we apply it to individuals. As noted, George Washington warned that vested interests would use political parties to divide and disempower citizens. We must find ways to move beyond these largely false, vested interest manufactured divisions and work together on our massive common interests. Drawing in participants from across the political spectrum should be a primary goal of high-level system change collaboration.

Accurate Information. Providing accurate, unbiased information about environmental, social and economic problems and solutions is essential for successful high-level system change. As noted, vested interest controlled media regularly provides citizens with inaccurate, biased information. This appears to help vested interests in the short-term. But it degrades society by preventing people from acting on their common interests. Citizens cannot exercise their strong collective power if they are falsely divided and given inaccurate information. To engage the public in driving necessary systemic changes, a main goal of high-level system change collaboration should be to publish honest, accurate information about problems and solutions.

Engage the Corporate and Financial Sectors. High-level system change collaboration also should help the corporate and financial sectors to integrate mid-level and high-level system change into corporate strategies and investment decisions. The conclusion of the whole system book noted above also is published as a separate book—*Global System Change: We the People Achieving True Democracy, Sustainable Economy and Total Corporate Responsibility*.

This summary book provides extensive information about successful high-level system change collaboration. It also describes a practical and profitable approach for engaging the corporate and financial sectors in system change, called Total Corporate Responsibility. In addition, the book extensively discusses uniting citizens and providing them with accurate, empowering information.

High-level system change is extremely complex. No person or organization fully understands how to achieve it. Collaboration is essential. The most important action early on is to form the collaboration and begin working. We do not need to know all necessary actions beforehand. These will become clear as humanity devotes the time, attention and resources that this issue deserves and requires.

5. Benefits

Corporate sustainability leaders often gain many benefits, including enhanced reputation, market share and profitability. The same will occur for corporate system change pioneers.

History will look back on current business, political, academic and other system change leaders as the true heroes of this generation, in the same way that the US Founders are seen as the heroes of their generation.

There were extensive differences among the Founders, such as those between slave and free states and small and large states. But these wise leaders put the well-being of their country ahead of personal and vested interests. They reached compromises that produced one of the greatest nations in human history. This wisdom is needed once again. We must set aside partisan interests and work together on evolving economic and political systems into sustainable forms. The wisdom of nature surrounds and pervades us. As parts of nature, we innately contain this wisdom. Our prosperity and possibly survival require that we manifest the wisdom of nature in human society.

Ongoing environmental and social degradation will make sustainability the primary business issue of the 21st century. Business has driven many positive transformations in society. Through practical, logical collaborative efforts, companies can play a major role in driving system change. Collaborative high-level system change represents the best, and perhaps the only way for business and society to achieve sustainability and real prosperity.

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Foresight's *FOUR* Frames

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Abstract

Strategic Foresight is usually understood to be a process for exploring possible and plausible futures, or an ability to better anticipate and prepare for what those futures may hold. This perspective may reflect the majority of foresight practice, but, intellectually and in terms of potential value, it is incomplete and unnecessarily constrains the scope and clarity of insights Foresight could provide. The article argues for Foresight to be deployed on the full context of the selected theme; on the dynamically evolving set of factors of four frames. The frames are the past, the present, the future, and the commitment those contributing to the Foresight bring to the exercise. Each of the four frames is influenced, more or less depending on the theme and the timing, by the state of one or more of the other three. A Foresight exercise that omits consideration of even only one frame weakens its output and may, in times of unexpected or extreme disruption for the theme being explored, render the output unusable without major adjustment.

1. Introduction

Strategic Foresight, henceforth Foresight, is usually understood as a process for exploring possible and plausible futures, or an ability to anticipate and prepare for what those futures may hold. All published definitions of Foresight—and there are many, very different, definitions—reflect a focus on the future, and only the future. From an attempt in 2006 to assemble opinion on and facts about Foresight*, two examples:

“Strategic Foresight is the ability to create and maintain a high-quality, coherent and functional forward view, and to use the insights arising in useful organizational ways. For example, to detect adverse conditions, guide policy, shape strategy and explore new markets, products and services. It represents a fusion of futures methods with those of strategic management.”

– **Richard A. Slaughter.** *Futures for the Third Millennium; Enabling the Forward View*, Prospect Media, St Leonards, NSW 1999, p 218

“(Strategic) Foresight is the integrated capacity to see, think through and do what needs to be done NOW in the light of history-altering implications of the weak signals of change, while

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there is still time to act pro-actively and creatively and before hidden opportunities are lost and unseen threats have become crises.”*

The perspective that Foresight is virtually all about the future seems accurate in practice. But, intellectually and in terms of potential Foresight usefulness, it is woefully incomplete, unnecessarily constraining the scope and the depth of insights Foresight can achieve.

“Willful blindness can be considered the antithesis of good Foresight.”

Foresight deserves to be recognized for its potential† ability to shine light on the *full* context of the selected theme, whether an issue, event, action or personality. This *full* context is an evolving and dynamic assembly of interconnected factors from the past, in the present, which the future may offer or impose, and, not infrequently the most important, the influence of those contributing to the Foresight exercise in terms of the nature of their commitment to the process.

Thus, Foresight has four frames of exploration, each of which is influenced—and at times governed—by elements of one or more of the other three. Omitting even only one frame from consideration in a Foresight exercise at least shortchanges the effort, because it leaves the output vulnerable to later needs or demands for adjustment‡ which may be unexpected or extreme.

2. Foresight Frame ONE: ‘From the Past’

The past is the foundation of the present; for virtually all§ of the present’s context. For the Foresight practitioner, the past in large part determines what (s)he *initially* brings to the discussion by way of assumptions, biases and interests, the tone and strength of their expression, and the level of willingness to hear and consider the assumptions, biases and interests of others.

During many Foresight processes, and with the passage of time, many do adjust their *initial* positions. The impact on and the importance for Foresight of adjustments to individual and collective assumptions, biases and interests are further considered below. Suffice it to note here is the new knowledge and understanding that each person gains of themselves and of their colleagues through their participation in Foresight.

The past is when lessons were learned that are reflected, more or less, in today’s opinions, policies, plans, and strategies. However, intellectual laziness, and worse willful blindness, in the past will have ensured many opportunities to learn important lessons were ignored or wasted. Willful blindness can be considered the antithesis of good Foresight. Therefore, exploring the past for those missed opportunities, for insights into why we did not ‘see better’ then, might improve our ability to see better now and into the future. This, arguably, is the most powerful reason why Foresight from the past can be so useful.

* www.foresightcanada.ca

† Foresight’s outputs and benefits can only be as good as the Foresight process is rigorous.

‡ Which might include throwing it out.

§ Natural disasters and their severity may be independent of what came before.

But the ‘past’—history—is becoming an ever more challenging study. This is because the record of history is increasingly a ‘work in progress’; competitive and disputed progress at that. Not long ago—arguably at some time in the latter half of the 20th century—a sea change in the recording of history took place. It became both possible* and acceptable for the past to be recorded and analyzed not only by the main actors; the leaders and winners in history’s great milestones and by ‘subject matter experts’ who attracted a publisher, but by any committed and reasonably literate person with a cause and a computer. Today there are three impacts of this sea change:

- history is being re-interpreted and rewritten all over the world, with significant impact† on geopolitics and economics. Disputes about, and additions and corrections to the existing record have damaged reputations, invalidated government policy, provoked forceful demands for apology, reparation and revenge, and, promoted calls for the impossible; a return to past circumstances.
- ‘modern history’—the record of events and their causes and effects since the sea change in eligibility to be ‘a historian’—is invariably debated, sometimes disputed and, fortunately infrequently so far, fought over. What this means for opinions, policies, plans, and strategies in the future is unpredictable and uncertain; a situation that seems to call for more and better foresight; foresight that looks ‘allwards’.
- precedent—so long a key, respected foundation of analysis, and decision-making and justice—may continue to be interesting, but will be less and less often constructively useful on its own. Instead, as precedent becomes more porous in the face of additional histories, it offers the opportunity for the self-interested to apply only selected parts, which almost certainly will provoke debate, probably disputes and possibly violence. For sure, battle-fields already exist where those demanding ‘new’ and more accurate histories struggle against an ‘establishment’ correctly fearing that if existing history is discredited, they stand to lose much. Invariably, as in all war, the side having initial advantage depends on many factors. Today, that advantage can be as easy to achieve as being the first to the internet with a sensational claim that is sufficiently true it cannot be totally and quickly discredited.

Foresight of the past has three stores of value—of usefulness:

- to learn lessons still un-learned; unlearned by design or default, and
- to unlearn lessons exposed by newly completed, corrected and accepted histories as wrong, and
- to help people come to terms with a world that is a “one room schoolhouse of seven billion-plus student-teachers” who are both writers and users of histories.

* Primarily due to the internet.

† National feelings have risen to the point that inter-state violence over differences in historical records and their interpretation is no longer unimaginable.

Foresight of the past is wisdom-building, *if care is taken to keep up well-enough with changes to histories to be at least aware of all the major versions*. It seeks the how and the why and the with-what-means Foresight of the past was, or was not, *or could have been*, important and beneficial. Foresight of the past is exploration to identify:

- cases of successful Foresight, and
- times when Foresight could have been used, but was not, and why, and
- cases and issues for which some application of Foresight would have been at least interesting, possibly useful and, with hindsight*, important going forward from a specific point in time, and
- events, natural and not, the costs and unhappy consequences of which would have been less had Foresight preceded them.

3. Foresight Frame TWO: ‘In the Present’

The ‘present’ is when all Foresight is done. When and how it is done and what it produces are directly and absolutely determined by the people doing it. Since the biases and assumptions and interests that govern their input and analyses are, by and large, the product of their knowledge of and experience in the past, the importance of Foresight of the past is obvious. And, since all Foresight becomes history with the passage of time, adding to the ever-growing amount of knowledge and experience that are the resources of hindsight, how well Foresight is done now is not only important in its own right in professional terms, but a key determinant of the quality of Foresight that can be done in the future.

The present, unlike the past and the future, is a time when, in theory, ‘all’ that is can be seen and known. Therefore, paradoxically, it is the frame of Foresight when ‘blindness’ has the most faces. On the one hand, some blindness is inevitable. It is impossible, in practice, to see ‘everything’, so one does not have to be willful to be ‘blind’. As well, much that exists, and is happening today, is unhappy, uncomfortable, disruptive, or damaging. Such is human nature that, when we can—usually when the known cost is not too great, we avoid—do not ‘see’—such things, or we under-represent their impact and seriousness. Foresight done under these circumstances will suffer from incomplete or inaccurate ‘facts’.

In addition to the problems of information and data that are incomplete or inaccurate, it is often the case that a Foresight exercise is unduly influenced by what is loud, clear and certain ‘now’, however produced, but invariably by ‘experts’. In this situation the result is likely to be fewer high-value insights than when one respects that ‘now’ is fleeting and will never return, and that small (quiet) signals and (uncertain) wild cards ‘seen’ and imagined today—resources that ‘experts’ are loathe to accept[†]—can throw invaluable light on what the future may hold.

Foresight in the present is the frame in which the environment for Foresight on the future is designed and constructed. Current and foreseeable trends and drivers of context are explored

* Hindsight is only very rarely 20-20. You can know ‘truth’, and you might even know only truth, but no one can know *all* the truth.

† I have never met an expert on the future, but have met experts who think they are.

to, primarily, focus priorities and make choices for Foresight to come, in terms of:

- which issues most need and deserve Foresight attention,
- which ‘lenses’,* all things considered, should be employed, and
- what is obstructing and delaying wise anticipation of and thoughtful preparation for the future?

“The more we think about the future and prepare for what it may bring, the more likely it will turn out to be to our liking.”

The value of Foresight in the present depends directly on a complex combination of effort by and attitude of those doing the Foresight. If they are open and honest the following benefits can be realized:

- A reduction in blindness, both willful and not. Seen will be more of that which personal and professional biases and assumptions encouraged one to ignore or shortchange previously. And, unwillful blindness; unwillingness or inability to look for and see ‘allwards’, can be much reduced.
- More awareness of one’s own and others’ interests, how they influence and are influenced by both biases and assumptions, and how they are reflected in plans for dealing with issues and their implementation.
- A wake-up call about imminent threats, opportunities and complexity, and on how ready; i.e., competent†, one is to deal with them.
- A highlighting of ways that and reasons why ‘grand’ challenges influence our well-being.
- Better scenarios of life-cycle characteristics and dynamics of issues that deserve attention first and most, and, clearer indications of the competencies most demanded for such attention to be effective.

4. Foresight Frame THREE: ‘For the Future’

As noted at the beginning of this think-piece, Foresight is “usually understood as a process for exploring possible and plausible futures, or an ability to anticipate and prepare for what those futures may hold.”

Unfortunately, Foresight for the future manifests a troubling paradox. On the one hand it *must* be the most potentially useful and valuable. The future will come. The more we think about the future and prepare for what it may bring, the more likely it will turn out to be to our liking. Also, because the future is uncertain and unpredictable, there are no ‘experts on the

* Foresight lenses include but are not limited to; climate, technology, security, economics, demographics, politics

† Competence Matrix - Harries

future'. It is where, for the moment, everyone is equal in terms of being 'right' about what is coming, needed, and how well we will respond. This is a valuable intellectual space; one in which imagination and dialogue can be exploited, when being 'right' is less needed and valuable than being open and thoughtful. Experience shows that individuals who are enemies on one or more planes of an issue, who hold diametrically opposed positions on an important matter, are able to explore together, calmly, *futures* of that issue, or of others acknowledged deserving of discussion, notwithstanding that, in their present-day context, disagreement is so extreme, dialogue is impossible.

On the other hand, doing Foresight is both necessarily and inherently disruptive in a number of ways. Any one of them can lead to such discomfort for one or more actors that the process is corrupted or constrained or, even, shut down.* Potential disruptions include:

- the frustration, even anger, of highly-respected Small and Medium-Sized Enterprises SME when Foresight exposes aspects of their field, in the present or in the foreseeable future, in which they are not experts, or are not in a position to become so. The worst Foresight insight for an expert is a signal that their field may not even exist at some time in the future.
- the hesitation, or refusal, to include unwanted or bad futures in even a nominally rigorous Foresight exercise. Doing Foresight on only wanted or good futures—a normative process—is not recommended *unless*, in the manner of military campaign planning, a single future (the enemy is defeated) is explored for a number of ways to achieve it.
- individuals in control, or with powerful and valuable vested interests, become very unhappy if they learn they may not have control in the future, or that their interests are at risk in ways they cannot avoid and to a degree they cannot afford. It is the rich and powerful who are most often guilty of the willful blindness that corrupts Foresight.
- the output of a good Foresight exercise are insights that call for, if not demand, action—in particular, change to the status quo. Not infrequently there is some urgency to the insight. But individuals and organizations are very busy handling the demands of their day to day activities. Adding more tasks that have not been scheduled or budgeted for, or included in human resources plans, can be conveniently set aside by classing them as 'impossible'. In times of change, the status quo and wise and agile leading do not co-exist easily.
- insights from Foresight often highlight the fact that what seems to be needed in preparing for the future is outside or beyond the competence of the organization. Making the decision to establish competence for a future that is uncertain and unpredictable requires an uncommon brand of courage in both the leaders and the led.

* The National Defence College of Canada, a globally respected institution and programme, was shut down by federal officials who were 'disrupted' by the 44 participant-executives' annual answer to the question: What sort of Policies for What sort of Canada in What sort of World? The excuse given publicly for the closure was untrue.

- Foresight is done by everyone only on a personal and immediate level. Even when output from good Foresight is available, it is often ignored or poorly exploited. It is seldom easy being different. Cassandras live a vulnerable existence. When one is different and turns out to be wrong, it may not only be pride that is at stake, but much more, and the whole organization may suffer.

Nevertheless, Foresight *should* be done, because the future will come. If it is not faced up to strongly enough and early enough to shape it, the future will shape us, forcing us to react....if we can....if we survive its surprises and shocks.

“Foresight of the future is about generating awareness of what the future may hold and constructing commitment to prepare for it, from this moment on.”

Foresight is not the same as ‘futures studies’. Whereas both accept that the future is neither predictable nor predetermined, espouse the holistic view, and design scenarios and develop insights from a range of different disciplines, actors and contexts, they are very different. Foresight’s premise is that outcomes in the future can be influenced by implicit and explicit decisions in the present, whereas ‘futures studies’ make no effort to influence the future, only to know and understand it.

Foresight of the future is about generating awareness of what the future may hold and constructing commitment to prepare for it, from this moment on. Using one or more of a long list of tools* in combination with invention, creativity, imagination and innovation a number of different futures at some date in the future can be described in detail, each consistent in and of itself. Each story is then ‘backcast’ to the present in an iterative fashion. The results of backcasting are scrutinized for common aspects and patterns. The common aspects and patterns are the insights directing attention to gaps, inconsistencies and opportunities—real or perceived. These include:

- capacities and competencies available now may not be those needed at a specific date in the future so can be retired, and
- lenses and drivers being deployed for Foresight in the present may not be the best at a specific date in the future, and
- existing policies, policy-making and policy-selection ways and means may be, respectively, irrelevant, ineffective or inappropriate in the future.

The usefulness of Foresight for the future will depend on the context of the future, which is unknown. Its value, however, rests both on what it offers as it is being carried out, and how meaningfully its output—insights—promotes improved and more confident commitment to

* See http://en.wikipedia.org/wiki/futures_studies and <http://en.wikipedia.org/wiki/foresight>

preparing for the future. The following list of ‘value’ of Foresight for the future has been adapted from that published by the since-shuttered* Office of the National Science Advisor of Canada.

- anticipate multiple, plausible futures.
- explore, without constraints, prospective developments in the 5-25 years horizon.
- highlight emerging opportunities and threats.
- better understand the range of key factors and drivers of change.
- more relevantly accommodate risk, contingency and diversity.
- provide a platform to rehearse ways of dealing with potential critical challenges.
- create transition strategies to move more effectively towards preferred futures.

In summary, the goal of Foresight for the future is to build capacity and competence to shape the future, from ‘now’ on.

5. Foresight Frame FOUR: ‘Within’

People decide Foresight will be done. Foresight is then done by people. People decide how any output—insights—from Foresight will be used, if at all. And people decide if a Foresight exercise will be the last one done, or the first of many, or the start of a continuing exercise in shaping the future. Therefore, arguably, and as stated in the introduction, the most important of the four Frames of Foresight is that ‘within’ each individual.

“Effective Foresight depends far more on collective effort and commitment than on individual brilliance and specialist expertise.”

Much in the preceding material either calls for or implies the importance to good Foresight of honesty and openness, and not a little courage. People who know themselves well, and accept what they know, and are willing and able to work with the inherent and inescapable disruptions of Foresight, will do the best work, for three reasons:

- every human being has unique hindsight. (S)he thinks, sees, knows and behaves based on a unique and ever-changing suite of biases, assumptions and interests. Knowing one’s own personality and behavioural suite and being willing to learn that of others, is key to good Foresight.
- effective Foresight depends far more on collective effort and commitment than on individual brilliance and specialist expertise. Very few of today’s important threats

* 2006

and opportunities are amenable to solution by individuals acting on their own, or by single communities, or even by single countries. Everything on the forward horizon reinforces this fact.

- those who are willing and able to adjust their biases, assumptions and interests as change unfolds the future will have the greatest ability to exploit change well and opportunity to enjoy the outcomes

6. End Remark

Foresight is the ability to ‘see’ **allwards** in time and place: forwards, backwards, upwards, downwards, left and right, and most important of all, *inwards*. If one does not know oneself, “willful blindness” will be inevitable, and, it will be impossible to do Foresight and one who is confident will help in shaping and preparing for the future.

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The Political Economy of Neoliberalism and Illiberal Democracy

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Abstract

The unprecedented opportunities missed at the end of the Cold War have come back to haunt and taunt us in the form of misshapen ideologies and misconceived policies. Discredited notions discarded by history once again raise their heads to be finally buried or bury us. Despite the rhetoric of the Washington Consensus, the fall of the Berlin Wall, the collapse of communism and dissolution of Soviet authoritarianism did not mark a final vindication and victory for Western democratic neoliberalism. They only removed the antagonist who had compelled Western ideologues to moderate their actions to counterbalance the obvious humanistic appeal of socialism. Blinded by their own propaganda, theorists, politicians and the general public have embraced a course that threatens the stability and sustainability of Western society. Globalization, financialization, global mergers and acquisitions, shadow banking, international tax havens, the policy bias favoring energy-intensive automation, maximizing share-holder value, state capture, oligarchy and plutocracy have fueled soaring levels of economic inequality and insecurity. More importantly, they have shaken the roots of the social consensus that is the foundation of modern liberal democracies: polarizing and destabilizing society and throwing political processes into chaos. The notion that economics can be divorced and insulated from politics is an illusion. There is no economy without politics and law. A return to unbridled capitalism is threatening the culture of liberal values and the functioning of democratic institutions. Even mature democracies show signs of degenerating into their illiberal namesakes. The historical record confirms that peaceful, prosperous, free and harmonious societies can best be nurtured by the widest possible distribution of all forms of power—political, economic, educational, scientific, technological and social—to the greatest extent to the greatest number. The aspiration for individual freedom can only be realized and preserved when it is married with the right to social equality. The mutual interdependence of the individual and the collective is the key to their reconciliation and humanity's future.

1. Challenges to Democracy

Democracy is under siege. Nations with a long history of liberalism are recanting on fundamental principles of secular democracy or embracing political sentiments that effectively undermine those principles. Fences are being constructed, both physically and

psychologically, along borders of previously open societies. Democratic elections have become the means for installing leaders with little respect for democratic values. The tolerance, openness and inclusiveness on which modern democracy is founded are being rejected by candidates and voters in favor of sectarian, parochial fears and interests. The role of the free press as an impartial arbiter of facts is being undermined by the rise of private and public news media conglomerates purveying political preference as fact combined with a blinding blizzard of fake news. Party politics has been polarized into a winner-take-all fight to the finish by vested-interests and impassioned extremist minorities trying to impose their agendas on a complacent majority. Corporate power and money power are transforming representative governments into plutocratic pseudo-democracies. Fundamentalists are seizing the instruments of secular democracy to impose intolerant linguistic, racial and religious homogeneity in place of the principles of liberty and harmonious heterogeneity that are democracy's foundation and pinnacle of achievement. Cherished ideals are thrown to the wind or given only rhetorical lip-service. The institution which has presided over the most remarkable advances of civilization in human history is frail and tottering.

The last quarter of the 20th century seemed to herald the ultimate victory of democracy. Between the mid-1970s and late 1990s the number of democracies rose from 45 to 120 in what Samuel Huntington termed the third wave of democratization. The third wave peaked in and suddenly veered from its evolutionary course. In what Larry Diamond termed "a democratic recession", elected leaders in Iran, Russia and Venezuela began reversing the gains of democracy through control of the media, manipulation of elections, suppression of political opposition, the rise of populists and autocrats, organized criminality, capture of the apparatus of government by economic interests, and other means.¹

All this was not supposed to happen. Just twenty years earlier Francis Fukuyama had proclaimed the end of history in his famous book by that title. He had argued that the supremacy of Western liberal democracy signaled the endpoint of humanity's sociocultural evolution and the final form of human government. He traced a straight-line trajectory of political, economic and social progress that would eradicate the contending forces which had wrought violence and instability throughout the 20th century. The end of the Cold War, dissolution of the Soviet empire, the breakup of the USSR itself, the collapse of authoritarian communism in Eastern Europe and Central Asia, the reunification of Germany, and the momentous agreement of the superpowers to dismantle the enormous nuclear warheads under their control were supposed to lead to a world of peace, freedom and prosperity for everyone everywhere. By a classic domino effect, local and mostly peaceful revolutions in Eastern Europe replaced party bosses with democratically elected leaders, though all too often it was the same faces that appeared wearing different signboards. Overnight the geopolitical complexion of Europe and the world was radically altered. These astonishing events were followed in quick succession by the founding of the World Trade Organization, the rapid expansion of the European Union, an explosion of technological innovation and proliferation, and the birth of the Internet/World Wide Web as the first global social institution.

Many Western leaders and intellectuals began to interpret these events as the ultimate vindication of the dominant ideologies espoused by Ronald Reagan and Margaret Thatcher

during the 1980s. Descending on their Eastern counterparts, they celebrated the triumph of the Western economic and political system, boldly proclaiming the final victory of liberal democracy, the wisdom of the market, and the Washington Consensus. Dismissing Soviet President Mikhail Gorbachev's vision and heroism as the inevitable surrender to superior forces, they rewrote the facts of recent history to prove that the West had vanquished the enemies of neoliberalism by outspending the Soviet war machine, unleashing the creative forces of unbridled capitalism, denationalizing public sector enterprises and dismantling social safety nets which had elevated Western living standards to unparalleled levels over the previous decades. The heady euphoria of ideologues and newly liberated true believers spread wide and far. Communism was out. A new or rather old brand of capitalism discredited since the Great Depression was back in fashion and force. Naive former communist politicians, diplomats and academics changed sides, embraced the new orthodoxy and presided over the rapid sell-off of prime public property to former party leaders, an act of such criminal proportions that it was later labeled the greatest robbery in the history of the world. At the same time, the European Union and NATO, both eager to expand eastward, opened their arms to their neighboring erstwhile enemies. The pledge given by NATO to Russia to refrain from eastward military expansion was quickly forgotten and abrogated. The irresistible lure of Western integration led to the sudden breakup of Yugoslavia, before there was any time for thought regarding the aspirations of large minority groups in each of its former republics, a lapse in thought later repeated in Ukraine.

2. The Economics of Politics

Few perceived that the end of political contention between East and West was preparing fertile ground for a new and even more insidious threat to Western democracy—a threat from within its own ranks. The self-proclaimed victors in the ideological battle of the previous half-century became intoxicated by their own heady brew. Warning signs began to appear. The founding of the WTO led to pressure on vulnerable developing countries to dismantle decades of trade policies designed to protect their fragile economies and marginally employed populations from the global onslaught. The lure of opening up the huge Chinese labor and consumer markets overshadowed the threat that it might ravage Western manufacturing. To counter the growing economic might of the EU, the US government pushed through the North American Free Trade Agreement, despite serious concerns of its impact on the domestic labor force. Meanwhile a similar cry was used to persuade national governments to relax the criteria for anti-trust enforcement, resulting in an avalanche of mergers and acquisitions that transformed predominantly national corporations into global conglomerates.

Within a decade the global market was transformed into a vast frontier for unregulated capitalism, a new wild west for land grabbing and profiteering, a global casino gambling with the stability and security of the global economic system for chips. Faced with intensified competition for global financial dominance, giant American financial service corporations persuaded their government to dismantle the barriers separating commercial and investment banking, which had shielded the domestic banking system since the 1930s. Shareholder value replaced customer service, commitment to people and social responsibility in corporate mission

statements. National pride in homegrown companies was undermined by a rapid movement of corporate headquarters to off-shore tax havens to avoid repaying a debt to the societies which had nurtured their rise. Giant hedge funds proliferated to escape the purview of regulators and tax authorities. Shadow banking expanded from \$1.3 trillion in 2011 to \$36 trillion in five years. Financial markets cut the bonds that had made them the lifelines and arteries for nurturing the real economy declaring financialization as the true religion of capitalism. According to one estimate, corporations are reinvesting just one to two percent of their assets in Main Street and a mere 15% of financial flows are now being invested in the real economy.²

“A mere 15% of financial flows are now being invested in the real economy.”

With equal suddenness, the heady days of the dotcom boom turned to bust in 2001. It took a war on two fronts in Afghanistan and Iraq to revive America’s economic growth and political self-confidence in the new millennium. Corporations began channeling their record profits into M&As, share buybacks, offshore tax havens and speculative investments. Capital investment in R&D, new production facilities and new jobs declined by 21 percent between 2000 and 2010.³ A boom in real estate and commodity prices prompted former Fed Chairman Alan Greenspan to deny that any bubble was forming in the US economy, while his successor Ben Bernanke denied the existence of the global savings glut which sent hundreds of trillion dollars into orbit on the global markets in search of speculative returns. Such deniers were rendered baffled and speechless when the sub-prime mortgage crisis and the 2008 global financial crisis set in soon afterwards. Meanwhile throughout the first decade of the new millennium, there was growing realization around the world that rampant capitalism represented an even greater, and perhaps ultimate, threat to the global community in the form of what Al Gore mildly termed the ‘inconvenient truth’ of climate change.

The rest is recent history. Unprecedented doses of quantitative easing were poured on global markets to save the financial industry from the consequences of its own actions, while allowing millions of Americans to be dispossessed of their homes and jobs. The financial crisis gave way in quick succession to the Great Recession, the Eurozone crisis, soaring unemployment in Europe, levels of inequality that have not been seen since the Roaring Twenties, an economic slowdown that eventually stalled even the Chinese juggernaut, rising incidents of violence, terrorism and piracy by unemployed youth in developing countries, a much heralded Arab Spring which quickly degenerated into civil wars and military takeovers, the ravaging of Syria in the name of freedom, the sudden birth of ISIS, a flood of immigration from the Middle East into Europe, the rise of far-right political leaders and policies in Hungary and Poland, the dissolution of the opened borders of the Schengen systems, the reversion to autocracy in Turkey, the Brexit vote in UK to reverse the long ascent toward European integration, the transformation of American politics into a parody of modern democracy that would be enormously entertaining if only it were not so real, coupled with the recent onslaught of an opiate epidemic and a violent backlash of white supremacy.

This very brief impressionist sketch of important historic events during the last three decades is far from complete. It does not purport to do justice to the multiplicity and

complexity of the factors and forces that have driven political and economic developments during this period. *Rather it is intended to highlight the inextricable relationship between the political and economic trajectories of the West during this period, the resurgence of neoliberal economic theory and policy, and the consequent demise of democratic institutions. There is irony in this assertion. For during most of the 20th century, neoliberalism had been projected as the greatest proponent, strongest bastion and final safeguard for Western liberal democratic institutions.*

3. Missed Opportunities

Through the hindsight of mind's rearview mirror, the history of civilization can be explained either as a steady march of human progress or a long string of missed opportunities. A greater truth is that it is both at the same time. The French Revolution swept aside centuries of feudal oppression and inequality in Europe, only to accept Napoleon as emperor and conqueror of Europe. The American Revolution founded a democratic society of former colonies, but it could not translate the lofty ideals of the Declaration of Independence into the US Constitution by extending equal rights to women and slaves, thereby making inevitable the Civil War 70 years later. The Civil War united the American states under a strong federal structure and abolished slavery on paper, but it took another century for the Civil Rights Movement to convert political freedom into a modicum of social equality for millions of blacks. The sun never set on the British Empire in the early 1900s, but when the aspiration for freedom arose in British India and other colonies, the British Commonwealth missed the opportunity to transform its vast empire into the first viable instrument for global governance, a measure which may well have avoided the necessity of two world wars. The harsh conditions imposed on Germany by the Treaty of Versailles, the refusal of the US to join the League of Nations, and the persistent expansion of European colonial empires after the war were missed opportunities that led inevitably to the Second World War. The bitter lessons of the Great Depression ushered in the New Deal as an effort to humanize capitalism and protect America from communism, but the government soon reversed course in the face of strong ideological opposition. President Roosevelt died before he could guide the passage of a second bill of rights recognizing the right of the American people to employment and other economic benefits.

In spite of these and countless similar errors and omissions, when the most destructive war in human history ended in 1945, the leading nations of the world created an unprecedented opportunity. They agreed to the rapid dismantling of colonial empires and the founding of the United Nations. Mutual suspicion amongst erstwhile allies necessitated the adoption of an undemocratic system of governance. Authority was centralized in the UN Security Council with its five permanent members and veto power. This ingenious act of expediency laid the essential groundwork for the avoidance of another world war for seven decades, the progressive expansion of UN membership from the original 45 to 193 countries, and the establishment of a network of global institutions to address the common scourges confronting the human community. But the founders of the UN failed to capitalize on the political opportunity. The UN was quickly transmuted into a forum for political confrontation between competing

military alliances. Instead of global disarmament, international relations degenerated into political and military competition and proxy wars around the world, a 45-year Cold War, and a frantic nuclear arms race that led to the production of 70,000 nuclear weapons.

It is from this perspective that we need to reexamine the events which have occurred since 1990. It is necessary to consider whether they have been the inevitable result of intractable forces that could not otherwise be diverted from more catastrophic consequences or the result of a blind insistence on discredited ideas and archaic attitudes which are now leading back to a future fraught with consequences far more catastrophic than any they sought to avert. *For recent events suggest that the self-proclaimed victory of democracy and neoliberal economics is now in danger of undermining the very principles which liberal democracies hold most sacred.* The exponential ballooning of global financial speculation, corporate buy-backs, shadow banking, international tax havens, joblessness, income inequality, polarization of politics, public distrust, social intolerance, alienation and violence are economic and political vital symptoms of this dangerous misadventure.

4. Intellectual Foundations of Political Economy

The relationship between economy and politics has always been fraught with bitter controversy from early times when governments assumed authority over property rights, taxation and minting of currency. But at no time in modern history have the two functioned independently of one another. Governments have always regarded economy as the principal source of revenues and economy has always depended on government to frame laws and policies conducive to economic freedom and development, at least for a privileged class. But in recent times Economics and Politics have been widely perceived as two separate spheres of activity, knowledge and expertise, whose independence is fortified by intellectual theory and academic divisions.

The discipline of Political Economy had its origins in the time of Adam Smith, a moral philosopher whose primary concern was promoting the maximum welfare of the greatest number of human beings. Smith sought to determine the appropriate role of the state in the governance of the economy in order to eliminate the adverse effects of mercantilist state policies on the welfare of society. At the time the nascent industrial economy was largely considered a province for exploitation by the monarch in collaboration with a small, wealthy merchant class. The regulation of trade and tariffs was heavily skewed to favor higher revenues for the monarch and high profits for domestic traders. The mercantile system resulted in higher prices for domestic consumers, who were doubly penalized with higher domestic prices and restricted access to competitive imports. Smith was motivated not by an unshakeable faith in the wisdom of the market but rather by a clear understanding of how powerful domestic, political and economic forces could capture and utilize social power for their own benefit.

Economic thought developed in Britain during the heydays of the Industrial Revolution. It focused on the adoption of methods to increase productivity and lower costs by the adoption of industrial technology and organization coupled with the development of financial markets,

which generated benefit to workers in the form of more jobs and to consumers in the form of an increasing variety of inexpensive goods, as illustrated by the 99% fall in the price of cotton textiles following the mechanization of cotton processing and weaving. It is noteworthy that the British Raj in India, founded on the efforts of private entrepreneurs in search of profit, was transformed two centuries later into a political entity governed by the British Government to promote both the economic and political objectives of its expanding colonial empire.

Concern regarding the role and responsibilities of government for economy was revived by the spread of Marxist thought. Marx did not question the efficacy of the industrial model of production. But he did vehemently question how the benefits of that model would impact on the population at large, elevating a few capitalists to the status of a new aristocracy while reducing the teeming proletariat to a mere factor of production valued in terms of their horse power. The result he rightly envisioned was an enormous growth and development of economic power coupled with an increasing concentration of wealth and privilege in European society. He concluded that nothing short of political revolution could transform the prevailing economic system into one that truly promotes the welfare of the masses.

Repeated financial and banking crises during the 1890s and early 1900s revealed the extreme vulnerability of unregulated markets, compelling governments to establish institutions and a legal framework for regulation. One result was the establishment of the US Federal Reserve following the banking crisis of 1907. Another was the introduction of anti-trust legislation to prevent the unrestrained growth of monopolies. At the same time perceptive politicians such as Churchill foresaw the threat of communism and strongly advocated the popularization of insurance as a means to foster economic security for the masses.

At the same time, rapid industrialization vastly increased the collective power of the state to exert influence at home and abroad. Rising nationalism coupled with industrialization and colonial imperialism led to the First World War when Germany resorted to war as a means to catch up with older European colonial powers. Fascist and Communist governments seized control of the instruments of production to promote political objectives.

The threat of unregulated markets became undeniable when the Great Crash and the Great Depression forcefully thrust the relationship between economy and politics into the foreground. On one side, growing concern in industrializing societies over rising levels of urban poverty and unemployment and increasing assertiveness of organized labor provided fertile ground for the rapid spread of communist sympathies. On the other side, it led to Roosevelt's New Deal, which represented a massive effort to humanize capitalism by erecting a legal and political safety net and authorizing the government to intrude into all areas of the economy in order to protect the masses from the challenges posed by rising levels of poverty and unemployment.

The Second World War pitted an alliance of capitalist and communist countries against Fascist states united by their common reliance on the power of government and state apparatus to advance the economic and political power and interests of the nation state. Their aim was concentration of collective power rather than individual welfare. Following

the conclusion of World War II, the world powers split into two camps characterized as democratic market economies and authoritarian communist states. Communist intellectuals developed theories supporting the nationalization of all economic activities. In response, the market economies of Western Europe leaned heavily toward nationalization and social welfare measures to counter the communist threat. The confrontation between these competing intellectual positions was embodied in the political division of the world into competing economic and military blocs during the Cold War.

“The New Deal was America’s attempt to answer the threat of communism by giving capitalism a human face.”

The end of the Cold War led to the rapid spread of democracy in Eastern Europe and developing countries and an equally rapid transition of formerly communist countries into market economies. This presented an opportunity to synthesize a conceptual and institutional framework reconciling the competing viewpoints of the rival camps into a new paradigm. Instead, Western intellectuals seized the opportunity to proclaim final victory in the struggle to reconcile political and economic freedom with social justice and equality. Instead of accepting the insights perceived by both systems, it revived an extreme version of neoliberal doctrine that justified a reversal of the legal and political structures established since the 1930s to govern economy for the welfare of all citizens.

Rapid economic globalization during the 1990s spurred by the founding of the World Trade Organization accentuated this tendency. For the first time since the dissolution of colonial empires a half century earlier, business enterprises were presented with a huge unsettled and uncivilized economic frontier, a Wild West for commercial and financial expansion, unhindered by government regulation. Pitting one nation against the other competitively for their own benefit, the global market also enabled businesses to escape for the first time from oversight, taxation and regulation by their own national governments. The new environment was exploited to reverse a century-old effort of governments to combat and restrict the monopolization of markets. The explosive growth of mergers and acquisitions nationally and internationally over the past 20 years has led to a concentration of market power that has not been witnessed since the 1920s.

5. The Neoliberal Threat to Democracy

The Mont Pelerin Society was founded after World War II by leading Western intellectuals horrified by the dual threat which authoritarian communism and fascism had posed to the fundamental freedoms of the democratic tradition. The seizure of industrial power by the state in the name of the nation, the party or the people had been a driving force for two world wars. The Society’s members rightly understood that private property and individual economic freedom had served as an essential condition and natural counterpart to political freedom in the rise of the West. Shocked by the facility with which modern economic and technological power could be turned into an instrument of mass destruction, its members committed themselves to freedom of expression, free market economic policies, and the political values of an open society as the only effective bulwark against totalitarianism. The term

'neoliberalism' has evolved over time and is applied to different doctrines, but in recent decades it has become identified with the doctrine of individual liberties and free market policies advocated by the Mont Pelerin Society, the Austrian School, the Chicago School, Milton Friedman, and the policies of Margaret Thatcher, Ronald Reagan, and Alan Greenspan.

The remarkable economic performance of the USA during and after the Second World War was testimony to the unparalleled prosperity that could be generated by unleashing the creative entrepreneurial energies of the private sector. In the light of this astonishing success, few were willing to consider the possibility that the same power which had been seized by the state to foster national ambitions could also be seized by private sector corporations and wealthy individuals for their own aims. After all, the conquest and rule of India had been carried out by the East India Company. The Government of Britain had only intervened after two hundred years to take control and possession of what private enterprise had accumulated.

Throughout the 20th century communism posed a challenge and threat to the philosophy of uncontrolled capitalism. Support for communism in many of the citadels of European democracy compelled political parties to recognize the powerful appeal of socialist policies that balanced individual freedom with social equality. Prior to the outbreak of the Russian Revolution, Churchill had recognized the threat in England and advocated social insurance as a means to counter it. Even in the citadel of capitalism, Roosevelt saw the rapid spread of communist sentiments among labor and the unemployed. The New Deal was America's attempt to answer the threat of communism by giving capitalism a human face. The popularity of social democratic policies in Western Europe after the war was a pragmatic response to the competition posed by its Eastern neighbors in which poverty and unemployment had been legally abolished.

So long as communism prevailed as a viable contender, capitalism was compelled to accept a compromise between individual freedom and social equality. But the sudden collapse of the communist party, the USSR, and the Warsaw Pact eliminated all competition and left an intellectual vacuum which neoliberalism was quick to fill with zealous conviction. By an irony of Nature, the intellectual consequence of resurgent neoliberalism has led to precisely the end which the founders of Mont Pelerin Society aspired to prevent. Rather than fortifying liberal democracy by ensuring economic freedom, unbridled economic power has become the greatest threat to political freedom.

Around the world, the power of money and commercial interests have infiltrated and taken increasing control of the powers of governance. Instead of fascist dictatorship or communist authoritarianism, democracies have morphed by various routes and means into oligarchies and plutocracies serving narrow exclusive economic elite. That power is being used to reinforce and increase the concentration of wealth and social power which free markets intended to forestall. The means of this capitalist counter-revolution assume various forms, both illegal and legal—from corrupt democratically elected governments leading in the extreme to state capture well underway in countries such as South Africa, rule by oligarchs in former Soviet Republics and the hijacking of secular democratic institutions by religious groups to the take-over of the independent media by corporate interests, democratic elections

largely determined by money power, regulatory capture of government policy dictated by private interest, and a revolving door of the elite between business and government. By another twist of irony, this counterrevolution is precipitating a revival of nationalism and retreat from the very principles of international cooperation and mutuality on which global markets and international institutions have been nurtured.

Much attention has been given to the role of religious fundamentalism as a reason for the erosion of democracy in developing countries. Much less has been given to the role of economic fundamentalism, which has been a primary driver in economically advanced nations since the end of the Cold War. Neoliberal economic doctrine is an orthodoxy masquerading as science. It is founded on a set of implicit values and premises that support the increasing concentration of all forms of social power. It merely changes the central lever from politics and economics.

“Neoliberal economic doctrine is an orthodoxy masquerading as science.”

The rise of neoliberalism in recent decades, the seizure of political power by financial and corporate power in the form of corruption, regulatory capture and, in extreme cases, state capture represent a fundamental threat to the future of democracy. The globalization of economy has created an unregulated wild west for both financial and other commercial interests exploiting the absence of regulation at the international level to escape taxation and consolidate concentration of market power, using the threat of international competition to reduce national level regulation as well. At a still deeper level the roots lie in a conservative, positivist theory of law and constitutionalism designed to protect vested interests rather than universal human rights and principles of social justice.

It is no coincidence that the core of Donald Trump’s supporters is predominately drawn from the unemployed and low income white population without higher education, which has been hardest hit by NAFTA and the globalization of trade. A large section of mainstream Americans voted to repudiate an economic system which supported declining economic opportunity at its base and soaring inequality at its peak. The sudden outbreak of organized political protests and racially motivated violence by self-proclaimed white supremacists, neo-Nazis and the KKK at Charlottesville, Virginia in August 2017—so uncomfortably reminiscent of Germany in the 1930s—is a blatant reminder of how deeply the pain of economic insecurity can dig into the psyche of a disgruntled population and sweep aside decades of social progress.

Today we are starkly confronted with the failure of prevailing theories to address the fundamental relationship between economic and political power. There is pressing need for social theory that recognizes the fact that all forms of social power—economic, military, political, technological, educational and cultural—are interrelated and interchangeable. That theory must also explicitly address the fundamental question of to whom does that power belong and whom should it serve.

The neoliberal intellectual framework disregards millennia of human civilization and culture by justifying in veiled form a return to the law of the jungle and struggle of the

fittest on a global scale. The lessons of history and progress of humanity to date support a very different conclusion. The evolution from monarchy and authoritarianism to democracy clearly demonstrates that the widest and most equitable distribution of political power, social rights, education, access to information and technology to all citizens is the most just, viable, productive, prosperous, vibrant and creative system of government yet envisioned. Equally or even more so, the equitable distribution of economic power is a compelling necessity both to fulfill the ideals of democracy as well as to preserve it from dissolution into its illiberal perversions in all their namesakes.

6. Illiberal Democracy

There has always been a wide gap between the ideals of democracy and the way it is practised. But, in recent times that gap has broadened into a breach in which even the semblance of democratic principles of governance is being cast aside in exchange for dysfunctional, polarized, uncompromising, confrontational partisan politics.

Historically, democracy emerged in Europe as a reaction and response to arbitrary authority, vast inequality and the ruthless tyranny of feudalism, monarchy and colonialism. It gained further support as an alternative to the harsh imposition of autocratic state socialism and military rule during the 20th century. For several centuries, democracy has been able to position itself as the acknowledged champion of human rights, most especially the values of individual freedom and social equality.

The decline and failure of authoritarian governments since the end of the Cold War and collapse of communism have altered the balance of forces and practices. No longer confronted by competition from an alternative form of government that promised greater security and equality, democracy has gradually fallen prey to self-destructive tendencies from within. It is no mere coincidence that after 1990 income inequality soared in both USA and Russia to the highest levels witnessed since the Russian Revolution.⁴ The resurgence of neoliberalism, the growing influence of money power in politics, the revolving door between government and business—five of Trump's appointees are former Goldman Sachs executives—the inordinate power of lobbyists, and a winner-take-all mentality of the momentary ruling party reflect a decline of the liberal values and democratic culture on which modern heterogeneous nation-states have been founded.

In his book *The Future of Freedom*, Fareed Zakaria applied the term 'illiberal democracy' to refer to countries in which the mechanisms and procedures of popular elections were not supported by the foundational cultural values of liberalism which constitute the heart and soul of true democracy. Zakaria traces the emergence of democracy from this culture of liberalism and draws conclusions of great relevance to our times. He points out that the institutions of democracy are only a mechanism. The results they generate depend on the ideas and values on which they are based. In the absence of liberal values, democracy can and does readily become an instrument for tyranny of an intolerant majority over different or dissenting minorities. The sudden demise of colonial empires resulted in an equally sudden effort by former colonial powers and other Western democracies to thrust, impose or cajole

developing countries to embrace democratic institutions before they had acquired the cultural values which are their base in consciousness. This resulted in countless failures, débâcles, and perversions. The history of the last seven decades is marked by a long series of national and civil wars that resulted from this hasty imposition on the unprepared.

“Democracy is not merely a mechanical set of laws and institutions. The external hardware of democracy is made viable and functional on the basis of social, cultural and psychological software.”

While Zakaria’s attention was largely focused on young democracies which had been taken over by populist leaders or orthodox clergy, the term ‘illiberal democracy’ is an apt description for the shift of politics in the former heartland of liberal democracy today. Brexit, election of Trump on an illiberal platform by a popular minority, and the retreat from internationalism in a number of European countries are recent manifestations of this phenomenon. So long as the problems of democracy were largely confined to young democracies and pseudo-democracies still learning, there was hope of finding eventual remedies for the shortcomings of the system. But the decline of democratic culture and practice in the heartlands of mature democracy is evidence that the passage of time will not be a sufficient solution to the problem. Even if Trump were removed from office tomorrow, the status quo would remain. Economic power has been infiltrating politics as the power behind the throne for decades and cannot be so easily deposed from its entrenched position.

Churchill is often quoted for saying, “No one pretends that democracy is perfect or all-wise. Indeed it has been said that democracy is the worst form of Government except for all those other forms that have been tried from time to time.” But does that really mean we cannot and should not strive to do better? The future of humanity depends on it. The achievement of the UN Sustainable Development Goals in a reasonable time frame is hardly possible without significant improvements in democratic governance at the national and international level. The World Academy’s quest for a human-centered development paradigm capable of addressing the pressing ecological, economic, political, social and cultural challenges of the 21st century is inconceivable without vast improvements in representative government. Effective response to increasing global financial insecurity, climate change, nuclear proliferation, unemployment and the retreat from international trade necessitates serious efforts to address the glaring shortcomings and injustices of democracy as it is currently being practised.

Much of the fault lies with those who have been the strongest advocates of democratic governance in recent decades. Under the leadership of the USA, the Western democracies seem to have forgotten the most fundamental principles on which stable democracies are founded. For decades they have purveyed democracy as a cure-all for every variety of national ailment and offered to transplant democratic systems to the unprepared with the speed and facility of erecting a new Coca Cola bottling unit or McDonald’s franchise restaurant. In the

process many seem to have lost sight of the fact that democracy is not merely a mechanical set of laws and institutions. The external hardware of democracy is made viable and functional on the basis of social, cultural and psychological software, without which it resembles real democracy no more than the Iranian theocracy or the People's Democratic Republic of Korea.

7. The Evolution of Democracy and Social Power

The ascent of humanity from small, isolated homogeneous communities to an interconnected and complex global society marks a long, slow, arduous and often violent process of social evolution replete with failed attempts, flawed experiments, backlashes and reversions to earlier forms, usurpations and perversions by entrenched powers that resist change or by disenfranchised groups impatient to seize power. Yet, taken as a whole, the progress of democracy presents a remarkable record of the incomplete march of humanity from barbarism to civilization and culture based on universal human values.

In the first of his ten volume *History of the English Speaking Peoples*, Winston Churchill narrates the long succession of events leading to the gradual formation of a national consciousness and national institutions in Britain during the centuries following the decline and fall of the Roman Empire. Wave after wave of foreign invasion from every direction led to a succession of new rulers in Britain. Each new ruling power exercised temporary suzerainty over the local population, only to be supplanted in turn by a new wave of invasion made possible and often encouraged by the suppressed and exploited local population anxious to cast off the old tyrant in favor of another one. Over centuries this process led to an increasing admixture and intermarriage between the immigrant and domestic populations resulting in an increasingly heterogeneous populace. It also left a deeply embedded racial memory of past suffering and a growing realization that the next conqueror was unlikely to be more humane or accommodating than the last. Gradually a consensus emerged among the existing families of feudal barons to forge an alliance in support of a common monarchy. During the course of five centuries, this process forged a unifying national identity among the heterogeneous communities of Britain, which eventually led to the emergence of a modern nation-state. History testifies to the fact that the process of social evolution and nation-building until now has taken place over long periods and under conditions of extreme duress. It should not be surprising to find that such difficulties persist among peoples who began the transition at a much later period of human history.

Each successive stage in social evolution involves a change in the consciousness and values of society, the means by which power and privilege are distributed, and the institutions it forges to give effective expression to them. The first fundamental necessity of each society is to ensure its own survival against external and internal threats. All higher values and ideals are necessarily subordinated to this existential objective. Survival necessitates the garnering of sufficient power within the community to fashion strong bonds of allegiance to the established system. The form of each society determines the means and principles by which it harnesses and distributes the potential power of the collective for the benefit of its leaders and members. This process in turn is the major determinant of the overall power of the society.

Early forms of the heterogeneous nation-state devised a number of mechanisms to ensure continuity and to resist the usurpation of power. The gradual evolution from feudalism to nationalism involved a continuous bartering of power and privileges between monarchs and feudal barons, securing allegiance to central authority in return for recognition of the rights and privileges of loyal supporters. In this manner, a *social process* of building consensus gives rise to a *power process* which defines the distribution of rights and powers at different levels of society. Historical experience testifies to the fact that *the wider that power is distributed, the greater the cohesiveness and effective strength of the society*.

The accomplishments of every society depend on their capacity to develop, release, direct, harness, and mobilize the energies, knowledge and skills of their people in an organized manner for purposeful activities such as self-defense, production, exchange, governance, communication, transportation and education. Earlier societies employed a variety of incentives and instruments of compulsion to direct the energies of their people in an intended manner, including threats of expulsion, loyalty to a brave or benevolent monarch, the promise of peace and security, the fruits of conquest, distribution of privileges and rewards, punishment for disobedience, and national pride. The evolution of governance leading up to modern democratic societies records the history of the human endeavor to devise more powerful and effective means of generating, developing and harnessing the social potential of their members to fulfill the goals and aspirations of the collective. Earlier systems achieved different measures of stability, resilience and power for conquest or defense, but no prior system has been able to match the extraordinary results achieved by modern democracies as an instrument for generating and purposefully directing social power. As an adaptive social mechanism, democracy is unmatched.

The remarkable power of democracy arises from its capacity to provide maximum incentives and opportunities for its individual members to develop and express their own energies and abilities in a manner that serves the interests of the wider collective. Tyrants and other forms of authoritarian government can compel obedience on pain of death to those directly under their supervision and control, but no other form so effectively internalizes the motivation for constructive contributions to the welfare of society as democracy. *The effort of modern democratic societies to develop the capacities and empower the actions of their members is the source of their unrivalled social power.*

Whereas in earlier times, power was largely concentrated and centralized in a small political or military elite and wealthy class, modern democracies have multiplied the centers and types of power supporting its growth and development. Today the overall power of a society very largely depends on its capacities for production, finance, transportation, communication, electricity generation, education, scientific research, technological development, health care system, employment generation, widespread distribution of wealth and social security for its citizens.

The role of democratic values and institutions in the generation and governance of social power has great relevance to recent events. The attempt to utilize the principles of representative democracy for the imposition of populist partisan politics or religious,

ethnic or linguistic mono-culturalism is fraught with danger. Democracy evolved as an instrument for effective multi-culturalism. The liberal principles on which it is founded are intended to protect the interests of minorities, not merely to reflect the will of a dominant majority. Elected democratic governments are expected to represent, serve and safeguard the rights of all citizens. Ironically, today the most effective symbol of the democratic spirit in world affairs is not the US presidential system or the British parliamentary system, but the Commonwealth, an intergovernmental organization of 52 nations, headed by Queen Elizabeth II, who presides above partisan politics of countless national political parties as representative of all her people.

8. Social and Cultural Foundations of Democracy

The evolution of the modern democratic nation-state arose from the gradual transformation in the way power and privilege are distributed in society through three stages of development. In the earliest stage physical factors were the major determinants—the power of the strongest warrior or group to lead, dominate and compel allegiance, the power of hereditary right based on birth and blood line, and the power of land as the principal resource for production were predominant in military empires, monarchies and feudal societies. The power of society was concentrated in the hands of a few and applied primarily to preserve the authority and privilege of its leaders. As society became more dynamic and productive, power began to move to the centers of commerce and new wealth. Monarchs came to depend on a thriving merchant class for support. Greater freedom of action and wider distribution of rewards proved necessary to encourage initiative and enterprise rather than mere allegiance and obedience among a wider population. With greater freedom, the society acquired far greater social capacity and social power and the sources of that power demanded an increasing share in the fruits of how power was distributed. Thus commenced the long struggle that led eventually to the supremacy of the Parliament over the monarchy in England and to the revolution in France. As a further consequence, republican France under Napoleon demonstrated that a nation of citizens fighting for the glory or defense of their country was far superior in strength to the armies of mercenaries available to the hereditary emperors of Europe.

The roots of modern democracy can be traced back to the development of constitutions and legal processes by which access and distribution of power in society came to be defined and determined on the basis of rights, universal values and principles of justice. The struggle for power sharing within society shifted from the battle field and court intrigue to the floor of parliaments, where new laws were framed to define the rights of citizens and electoral processes serve as the basis for the distribution and exercise of power. A culture of liberalism based on the freedom and rights of each individual citizen emerged as the seedbed for the development of the institutions of modern democracy.

This constitutive process gave rise to a set of impersonal principles for governance, power sharing and distribution of benefits to replace the impositions of personal preference by a monarch or authoritarian ruler. The laws arising from this process came to be framed by a legislative process, which in the measure the nation was a functioning representative democracy, reflected the consent and prevailing values of the society at large. *Thus, political*

power was founded on social process and defined and circumscribed by legal, legislative, constitutive process. In democracy, law is the codification of the public conscience. To the extent the legislative process ignores or overrides or prematurely imposes new standards upon public conscience it risks undermining the authority of law and the democratic institutions on which it is based. Therefore, at all times the consciousness of the population is the final determinant of the functioning of its institutions.

“Social evolution involves the progressive development of societies from a near exclusive emphasis on social conformity and blind submission to authority to a growing emphasis on recognition and empowerment of their individual members.”

Democracy is a sophisticated form of social organization devised to more effectively develop and harness the potential capacities of national communities and to more widely distribute and apply the social power it generates to promote the welfare of the entire community. The rise of democracy is one expression of a wider, more fundamental process of social evolution from small, isolated homogeneous communities to larger, open, heterogeneous nation-states living in productive exchange and harmony as members of the global community. Both the formation of the nation-state and the development of effective institutions of democracy depend for their basis on the simultaneous development of the consciousness of individual citizens and the conscious identity of the organized society. Neither by itself is sufficient.

The heterogeneous nation-state is founded on a culture of inclusiveness, tolerance and diversity. Without these three values, no nation-state can remain stable, secure and prosperous. In each stage of national evolution there is an inevitable tendency of entrenched sources of power to cling to or revert to earlier formulas of national identity drawn from history or fabricated from imagination, as in the case of the myth of Aryan origins in Nazi Germany or the current assertion by minorities in America that secular USA is a Christian nation, the desecularization of Turkey or the calls for redefining the identity of India—one of Nature’s richest experiments in heterogeneity founded on a culture of tolerance—as a Hindu nation. These claims are often founded on well-disguised vested interests, entrenched ignorance and irrational fear. Almost always they are based on a remarkable capacity to forget, distort or revise the history of a people to neglect the historical record, for in almost every case the present claimants to cultural domination were themselves earlier minorities admitted and assimilated into society by a tolerant majority.

9. Individual and Collective: Freedom and Equality

A viable culture of democracy has to reconcile two sets of interests that are frequently juxtaposed as mutually exclusive—the rights of the individual and the rights of the collective. As discussed above, social evolution involves the progressive development of societies from

a near exclusive emphasis on social conformity and blind submission to authority to a growing emphasis on recognition and empowerment of their individual members. In reality the two terms—individual and collective—are always mutually interdependent. No society can survive, develop and evolve without the aspiration, imagination, foresight, leadership, courage and initiative of developed individuals whose vision and actions transcend the status quo as catalysts for collective progress. In turn, no individual can fully develop without drawing on the rich reservoir of social resources generated, organized and transmitted from generation to generation by the collective. Society is the source of all the values, knowledge, skill, leadership qualities and organizational skills required for the development of individual character and personality. Society supports the development of individual leaders who in turn support the development of society. The individual and the collective represent complementary rather than contradictory elements.

“Individual accomplishment is always the result of the cumulative achievements of the society as a whole.”

In earlier times the number of individuals who acquired these capacities and rose to leadership positions was severely restricted to a tiny military, aristocratic or economic elite. But the curve of social evolution clearly points toward an increasing dissemination of the capacities for leadership through education and the opportunities for leadership through freedom for social mobility. In 1861 a single PhD was awarded in the entire USA. Today more than 50,000 are awarded annually. All the powers developed by society over countless generations are now being made accessible to ever larger numbers of citizens to enable them to acquire the capacities for self-development and individual accomplishment that are needed for the further development of the society.

Freedom is the most essential value for the development of the individual and the vibrancy of society. That is why the most successful political and economic systems place such a great emphasis on creating the conditions that not only permit but also actively support the fullest development, empowerment and freedom of action of their individual members. The energy, vision, creativity, courage, innovation and initiative of individuals are the motor power for continuous development of the social collective. The society that gives and invests so much in its members expects and requires in turn that each individual member contribute to its further development and that of all its members, rather than seeking to accumulate and possess for personal benefit alone the fruits of all they have received from society. Therefore, hand in hand with freedom, social values and power structures require the sharing of benefits among the wider population. Only then can it preserve the stability, cohesiveness and harmony required for continuous evolutionary advancement. Modern democratic societies represent the most advanced model for balancing, reconciling and harmonizing the twin objectives of individual development and well-being with social harmony and welfare.

All manner of experiments have been established throughout history emphasizing one or the other end of the value spectrum. Fascism and communism demonstrated the tremendous power of subordinating the individual to the perceived interests of the collective. The former destroyed itself by the application of violence against other societies as well as its own

members. The latter destroyed itself by suppressing the creative and dynamic energies of its people. In both cases the centralization of social power ended by consuming the societies in which they were applied. Capitalism on the other hand has always tended to err in the other direction by placing inordinate emphasis on unleashing individual initiative without sufficient regard for the welfare of the collective. The excessive decentralization of social power as individual or corporate right for self-seeking individualism poses an ever-living threat to the stability and cohesiveness of democratic societies.

So long as democratic capitalism was confronted with competition from the economic security promised by communism, it was subject to self-imposed constraints to prevent excessive discontent among lower levels of society and intellectuals who favor social justice over acquisitive self-indulgence. Now that the competition has vanished, neoliberal ideologues have revived capitalism's destructive tendency to affirm the claim of the most talented and dynamic of its members to the full and sole benefits of labor. In reality individual accomplishment is always the result of the cumulative achievements of the society as a whole. We cannot think a thought or voice an idea or act for a moment without drawing on the rich social heritage of knowledge, skill, invention developed by countless generations of humanity as our base and support. The values of individuality and individual freedom are themselves part of that legacy. The values of society are the result of its social, cultural and psychological development. The expression of those values is primarily determined by the social organization of its political and economic systems and the relationship between them.

A mere compromise or balancing of the two sets of values can never represent more than a temporary, unstable solution resulting in alternative swings between the left and the right. The real solution lies in a reconciliation of the two sets of values at a higher level in which the egoistic individualism of each citizen seeking to maximize his own welfare regardless of its impact on others evolves into self-actualized individuality in which each person seeks to maximize his own well-being by serving the development of other individuals and the society as a whole. This is the reconciliation envisioned by Carl Jung, Abraham Maslow, Carl Rogers, Rollo May and other great humanistic psychologists of the past century.

This perspective may appear utopian. Transforming human character and behavior is surely too formidable a challenge for serious consideration. Yet the evolution of human consciousness has been the dominant undercurrent and driver of all advances in development, civilization and culture. One need not look back too far in history to the time when marauding hordes wiped out whole civilizations, colonial powers traded in slaves and claimed entire nations as their private property, imperial conquest by the rule of might was the presiding deity of the age, conflicts were decided on the battlefield or in the dueling arena rather than at the conference table or in courts of law, human rights were narrowly confined to the privileges of a tiny powerful elite, education was the luxury of the aristocrat and the clergy, truth was the monopoly of church or mosque denouncing all viewpoints contrary to its own, knowledge was the sole possession of pseudo-intellectuals spouting circular arguments that only affirm their own premises with neither fact nor experience to validate their claims, racial and gender superiority and inferiority were considered too obvious to debate, tyrants were respected for their might, wealth was the power of the collective possessed and dedicated

to the extravagant dissipation of a privileged few, falsehood in all forms was acceptable so long as it was cloaked as conventional wisdom. Those times are past, regardless of what today's small-minded demagogues-for-a-day may ardently wish for. It is time to move on. The history of the past two centuries affirms it. The aspirations of today's youth demand it. The destiny of humanity makes it inevitable.

“What is needed is a life education that consciously develops and unleashes the physical, social, emotional, mental and spiritual energies and capacities of each individual for entrepreneurship, creativity and well-being.”

These truths compel us to seek both in theory and practice a formulation that freely and equitably distributes all forms of social power to all human beings everywhere. That formulation alone can result in the greatest power for both the individual and the collective to pursue ever higher levels of human welfare and well-being. No other possible answer will enable humanity to successfully cope with the multidimensional global challenges confronting society today. Marx was right, humanity does need a revolution and it must start with an intellectual revolution that rejects doctrinaire truths proclaiming the exclusive validity of a limited partial formula and embraces an integrated perspective that reconciles individual freedom with social equality and justice for all.

In an age of ubiquitous mechanism that stretches around the globe and encircles the lives of each and every individual with the overwhelming burden of bureaucracies, systems, technologies and so many other form-confining procedural requirements, it is tempting to wish for a dismantling of all machinery that can liberate individuals from all encumbrances and leave us free to pursue our own destinies. Yet history testifies to the fact that one person's conception of unlimited freedom inevitably involves the imposition of arbitrary constraints on everyone else, as so vividly demonstrated by the conversion of financial markets into a global casino, international trade into a global cartel of monopolies, money in politics into an oligopoly undermining the very principles of freedom for all, and unbridled growth into the ravaging of Nature. It is equally tempting to think that a mere individual is almost powerless against the collective weight of impersonal mechanism. Therefore, it is worth reflecting that throughout history up to the present moment, the actions of individuals have always played an inordinate role in the evolution of the collective.

Today we once again witness with consternation the power of a handful of demagogues to challenge, retard and at least temporarily reverse centuries of social progress. At times such as these, it is necessary to recall that in the past other small groups of visionary individuals exhibited the power to inspire and unleash rapid social advancement. One such group was America's founding fathers. And among its remarkable members is the singular example of Washington, who as commander-and-chief of the Continental Army categorically insisted on subjecting his military authority to that of the nascent Congress. At a time when the American colonists sacrificed so much to overcome autocratic rule, they chose Washington

as their first president because he had so singularly exhibited the determination to place the authority, power and welfare of the collective above and beyond the personal authority, ambition, and prestige of its leaders.

10. Education and Social Evolution

Leadership of this quality does not grow on trees or bloom in deserts. It is a product of the fertile soil of social enlightenment and cultural values. It cannot be manufactured, but it can be nurtured through education. But it cannot be achieved by a system of education that stamps out countless copies of mass produced citizens equipped with the standard intellectual programming, conventional wisdom and occupational skills required to serve as mindless cogs in the wheels of social machinery. It can only be achieved by a form of education that values independent thinking, development of personality and creativity far above memorization of facts and the ingestion or indigestion of prevailing theories and dogmas masquerading as knowledge. At a time when even the stability and security of the nuclear family are threatened, education is the most advanced means at our disposal to nurture the fullest development of each individual. For this purpose, professional education limited to stamping out citizen-employee equipped with the skill sets needed by our increasingly complex techno-society will not suffice. What is needed is a life education that consciously develops and unleashes the physical, social, emotional, mental and spiritual energies and capacities of each individual for entrepreneurship, creativity and well-being.

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Notes

1. Francis Fukuyama, *The Origins of Political Order: From Prehistoric Times to the French Revolution* (New York: Farrar, Straus and Giroux, 2011)
2. Rana Foroohar, *Makers and Takers: The Rise of Finance and the Fall of American Business* (New York: Crown Publishing, 2016).
3. Farooqar, *Makers and Takers*, 68.
4. Alexander C. Kaufman, "Russia And U.S. Are Nearly Tied As Leaders In Income Inequality" *The Huffington Post* August 17, 2017 http://www.huffingtonpost.in/entry/russia-us-inequality_us_5994ae69e4b0d0d2cc83f463

Economy and Society: Strategies for a More Equal Distribution of Societal Power

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Abstract

Unequal distribution of societal power is to a large extent responsible for poverty, hunger, the destruction of nature, and inhuman living conditions. From the perspective of its redistribution, we distinguish three basic means of power: The ownership of material and immaterial properties, the kind of organisation and the values according to which properties and their organisation are handled. This framework permits us to identify crucial power structures in less industrialised and industrial countries and within the financial, real productive, political and social subsystems of the society and allows us to sketch strategies for redistribution of societal power: Industrial countries have to reduce their real and financial capital inputs in favour of higher human capital investments and increase their direct investments in less industrialised countries, supported by a Global Marshall Plan. Less industrialised countries need to enhance both their industrial and alternative sectors, establish more democratic structures and human-centered educational systems. By these cooperative strategies the costs of former colonialism can be partly refunded. The main obstacle for such global cooperation is the global financial system, which has to be decentralised towards a multi-currency system, including regional currencies and barter. In the real productive sector, financial governance and capital-oriented hierarchies should be markedly reduced, which will increase creativity and productivity of work, underpinned by an enlarged human-centered education. Redistributing the prevailing power of the financial and productive sector rests considerably on democratic governance, which has to include increasing informal and legitimate interests and prevent plutocratic tendencies. For this, an economic democracy should be evolved where each individual not only has a vote, but also a guaranteed minimum income. Individual security, welfare and well-being are the foundations for higher creativity and productivity and ensure for each individual more freedom to organise themselves according to their own values. Extending the increasing individual social power to a large population creates social capital, which will accelerate the transition into a human-centered societal development.

1. Introduction

Accelerating globalisation and increasing interdependencies between countries and regions lead to the emergence of a global society with manifold cultural, social, economic and ecological differences. The coming global society will not be uniform; the prevailing

distribution of societal and economic resources has already resulted in environmental destruction, poverty, hunger and inhuman living conditions. At the same time, industrialism has produced enormous economic resources, which could alleviate the still-increasing global problems. But a transition into a human-centered society is enormously hampered by the prevailing unequal distribution of societal power.

“The overdone fear of job losses in industrial countries cannot be fought by higher economic growth, but by a reduction in working hours and investing more in unleashing human capital instead of resorting to real and financial capital investments.”

From the perspective of a human-centered society we can distinguish three fundamental means of societal power:

- a. the ownership of material and immaterial properties
- b. the kind of organisation of these properties and
- c. the values according to which properties and organisations are handled.

All three means are highly interdependent and in cases of high inequalities they are mutually reinforcing and result in rigidities, which lead to heavy crises. Therefore, a redistribution of societal power has to question simultaneously the existing distribution of properties, to modify the organisation of the inherited society and to create new values. In the long run, human-centered education is the most important strategy to change the prevailing distribution of properties and its organisational handling. But the change in values is only one of the three main means to unleash societal power and we will discuss here human-centered education only marginally and concentrate on the role of properties and their organisation.

To get a grip on the immense complexity of the global society, we will restrain our considerations to

- a. the main power relations between industrialised and less-industrial countries and
- b. the power structures of the financial, economic, political and social subsystems in industrial countries, which largely dominate global power structures.

Characterising these power structures is only possible in a systemic way and by referring to the empirical realities of a society. Therefore, we sketch in each area the prevailing power structures, the moderate reforms proposals envisaged and the deeper strategies in favour of a human-centered development of the global society. By this, we go beyond the general idea that we live in the age of the Anthropocene in which mankind has the ability to manage global crises. From the perspective of the social sciences, a transition into human-centered society is a highly complex process of interactions between individuals and social groups

and a transition depends ultimately on the vigorous enlargement of regional and global social capital.

In all areas exists a vast literature and we will abstain from using any citations, which allows us to trace the main lines for a human-centered redistribution of societal power.

2. Less Industrialised Countries

At the global level societal power is highly unequally distributed, which originates partly from colonialism. If we distinguish between industrialised and less industrialised countries, the latter have an enormous potential of human and natural resources. But they are—whatever the criteria may be—much less organised than industrial countries, which have established huge machinery with many detrimental consequences. Attempts to create regional economic areas, like Mercosur, ASEAN etc., fair trading blocs and regional currencies are initiatives that rest largely on advances in global political governance, the nucleus of which are the United Nations and its organisations. Although the Sustainable Development Goals and the Paris Agreement are globally accepted, their implementation is highly endangered by the still reigning neoliberal thinking, which does not reduce global gaps and considerations, for compensating for the exploitations of colonialism is beyond the reach of free market thinking.

There are several proposals for regulations of trade and direct investments, which could ameliorate the power position of less industrialised countries. The World Trade Organisation could be complemented by agreements on global social and environmental standards and for multinational firms legally binding codices of conduct could be ratified, which would ameliorate working conditions and protect nature. Instead of adopting the free market doctrine, the International Monetary Fund and the World Bank could take into account social and ecological criteria, which applies also for G7 and G20. But even these rather moderate regulatory proposals are very marginally implemented and could hardly change the basic global power relations.

More advanced but only academically discussed proposals are the Global Marshall Plan and the Global New Deal, which intend—maybe they are financed by public budgets or taxes on financial markets—to refund partly the costs of former colonialism. Equally important are strategies to increase private direct investments and establish human-centered educational systems, which could cooperate with the rapidly growing alternative sector with its non-profit enterprises, microcredits etc. To clarify the ownership of land in the agricultural sector would enhance motivation and transformational strategies can learn in some areas from experiences of transitions from the feudal to manufacturing and industrial era. However, a redistribution of societal power from industrial to less industrialised countries is mainly bound to a transfer of real productive capital, which has to be in the ownership of the population and public organisations and not be invested in international firms. Together with domestic resources this could accelerate the maximisation of the huge potential of human and natural resources, which need a more democratic reorganisation toward mixed economies. Societal wealth creation and sustainable human development depend on the interaction between more equally distributed financial, real productive, political and social power and

less industrialised countries should go beyond traditional industrialisation and find their own development strategies, based on new forms of ownership of material and immaterial properties, their regionally adequate organisation and human-centered educational systems.

3. Industrial Countries

Although global consciousness in industrial countries increases and leads to more global cooperation, the so-called First World acts to a large extent self-referentially. This is visible in the concentration of direct investments and trade among industrial countries, the financial centres in New York, London and Tokyo and more recently evident in the welcome culture for immigrants. The industrial world still attracts real and financial capital and finally, people, and it is not the globalisation of real production that they intend. Simultaneously, the industrial world suffers from over-accumulation of real productive capital and decreasing demand. It adopts mercantilistic strategies, which propel emerging countries towards export-led economic growth because of which they neglect their internal social development. Although in the past there were partly negative experiences with

“Human and social capital should become the centre of gravity of real and financial capital accumulation.”

direct investments, they have to be increased considerably and combined with legally binding codices and with exports of socio-ecologically oriented technologies. The overdone fear of job losses in industrial countries cannot be fought with higher economic growth, but with a reduction in working hours and investing more in unleashing human capital instead of resorting to real and financial capital investments.

The expanding discussion of a turn into a socio-ecological market economy is a first step out of the self-referential bias in industrial countries. Capital-saving innovations reduce energy and material inputs, which needs higher human capital inputs and results in a lower growth path. A precondition for a socio-ecological reorientation is higher educational and research investment, which goes partly beyond traditional economic efficiency and employability. Instead of the prevailing high costs of ex-post social policies, more ex-ante social investments should be combined with a transition from high taxation of labour into higher taxation of natural, real and financial capital. Less real capital investments in industrial countries and more real capital formation in less industrialised countries will contribute to a global convergence of societal wealth creation.

A transition into the socio-ecological market economy is a moderate step toward creating a human-centered society, because it still centres on modified real capital accumulation. What is needed is that human and social capital should become the centre of gravity of real and financial capital accumulation, which are just instruments for more security, welfare and well-being. A precondition for such a profound transition is the creation of a strong social capital, but this is hampered by the prevailing unequal distribution of societal power. The main obstacles are the unequal distribution of financial means and the relatively autonomous organisation, the unequal distribution of real productive capital and its capital-centred hierarchical organisation and the political governance restricted to voting. In the longer run,

human-centered education is a powerful instrument to meet these obstacles, but it has to be supported by simultaneous strategies for a redistribution of financial, real productive and political powers in favour of the large population.

4. Financial Power

As there exists no coherent global political governance, the real governing institutions are the financial markets, which have lately been leading to inhuman consequences. Supported by the neoliberal free market doctrine, the financial markets collect the savings surplus in industrial countries, the up-stream savings and the nearly unlimited money created from private banks and thus produce huge debts. In case of a repayment of debts, the global demand will shorten and contribute to global stagnation. Central banks, like the Federal Reserve, European Central Bank and the Bank of Japan, issue enormous quantities of artificial money and reduce money interest rates sharply without an increase in real investments. The ensuing wealth inflation augments the inequality of wealth distribution, increases speculation and also endangers states in Europe and partly in Japan and creates pressure on small and medium sized firms, including socio-ecological projects of the alternative sector. Paradoxically, the irrational financial sector attracts many of the best brains. The 2008 crisis was certainly a wake-up call, but even after minor corrections the financial system is still a threat and clearly contradicts the formation of a human-centered society.

Political and academic institutions are aware of the threats of irrational financialisation. Their reform proposals range from debt reductions by monetising, haircuts, heavy taxation, dissolution of tax oases, changes in rating agencies etc., but if we look at their implementation, minor progresses could be accomplished. The financial subsystem of the society has become more powerful than states and the private productive sector accepts this, because large firms act partly like banks and become part of them. What was formerly a transmitter of the population's savings to productive activities mutated to a relatively autonomous and closed subsystem of the society with marginal political control and nearly no influence on the large population.

Provided money is in the right hands, it is a powerful instrument for a transition into a human-centered society. But today, money is highly concentrated in the global financial system governed by the financial elites and large funds. However, in the face of recurring financial crises, the uni-polar global financial system tends to turn into a multi-polar system. Decentralisation beyond the dollar and euro areas would allow the coming tectonic plates of Asia and South America to rearrange their increasingly specific trade relations and production structures. Such regional currencies could be further disaggregated to local regions and include barter. Decentralisation permits more democratic control of regional central banks, which are actually subject to the globally interconnected network of the rather unipolar financial system. Decentralisation of the global financial system will bring money closer to real productive activities and contribute to a more human-centered societal development. But decentralisation of the monetary system has to be combined with strong responsibilities for its socio-ecologically oriented allocation which is bound to a more equal distribution of power in real production, political governance and an increase in the population's social power.

5. Power in Real Production

The real productive sector in industrial countries is mainly governed by the financial sector, but there is a considerable growth in the alternative sector, which in a few decades may reach nearly half of the world's total production. We have to expect a great diversity of productive activities both in highly and less industrialised countries. Actually, in the traditional economic sector—composed of industrial and the service sectors—we find a constantly augmenting substitution of labour by capital and capital owners gain more power vis-a-vis employees, visible through decreasing wages and relatively increasing returns on capital inputs.

During the last few years, innovations like energy-saving products, ICT applications and robotisation have partly modified the relations between capital and labour, but not the basic orientation to optimise the return-on-capital inputs. Whatever the concept of modern management may be, it results in capital-oriented hierarchy, heterarchy and in less employment, social inconvenience, mental diseases etc. Generally speaking, there is a tacit coalition between financial capital holders and real production management—enhanced by the Anglo-American business schools—which restrains freedom and the creativity of employees.

Moderate reform proposals include different softenings of the power structures of production management, control of market structures and a reduction in negative social and ecological externalities. They range from decentralising competition policies, concepts of humanisation of work by techno-organisational changes to more participation of workers, codices for Good Management and Corporate Social Responsibility.

More recently, firms have started augmenting their internal qualification programmes to enhance the entrepreneurial behaviour of the employees partly by going beyond the target of employability. This indicates their increasing need for creative employees with an enlarged consciousness beyond the immediate fulfillment of their job descriptions. However, the limits are set by the capital-oriented targets of firms instead of strategies that unfold the creativity and productivity of employees, a result of human-centered education and modified hierarchies in production and market exchanges.

A human-centered reorganisation of the real sector has to accept some hierarchies, which are unavoidable in any institution. But there is a tremendous difference between a capital centred and a human-centered hierarchy, heterarchy in particular. Such a turn has to be anchored in universally accepted human rights and the dignity of workers.

The humanisation of the productive system may entail additional costs, but they will be largely out-weighed by an increase in the creativity and productivity of labour. A precondition is a vigorous turn-back to the cooperation between management and employees and participation of workers in ownership and management decisions. An increasing number of small and medium firms and primarily the alternative sector practice such management with success and in many cases large firms have enough financial means for decoupling their decisions from the oppressive financial markets.

6. Political Power

Formal political power is mainly institutionalised by constitutional law at the level of nation-states with its different sub-levels in terms of provinces and communities and the division of legislative, executive and judicial powers. Such democratic governance rests on majority of rules according to which political parties govern. Their successes depend highly on the degree to which the population adheres to the values of a democracy. Within this framework exist semi-public organisations, like trade unions and business associations. In the last few decades, civil society, non-governmental organisations, parts of the alternative sector, internet fora etc. have gained considerable political influence. Thus, the complexity of the society and its power distribution change and formal democratic power structures strongly overlap with informal power. Prevailing democracies are endangered by the difficulties to channelise legal and legitimate informal powers into existing bureaucratic procedures and political parties tend to become plutocracies by turning around their own personnel and follow opinion polls instead of resorting to direct communication with the large population.

The extensive discussion of many political reform proposals ranks around more direct elements of democratic voting, limited periods for mandatories, dependency of their income on political successes etc. Whereas these proposals centre on the traditional political and bureaucratic procedures, others take into account the extensive economisation of the society, which results in economically-oriented decisions, including corruption, and deviates public policy from the original target to increase societal welfare by balancing-out diverging interests. Both in industrialised and less industrialised countries, the economisation of political decisions is underestimated, which undermines trust in democratic values. For example, central banks are marginally controlled by governments, but determine—together with the financial markets—most of the budget decisions. The highly unequal distribution of income and wealth can only very marginally be approached by the traditional monetary and fiscal policies. Even in the case of well-functioning voting democracies, the transition into a human-centered societal development is bound to an enlargement of the understanding of a democracy.

A redistribution of societal power towards the large population needs, beyond the individual right to vote, a minimum of individual economic resources. In a human-centered society each individual has a value and should have the right both for the political “property” of a vote and an economic property, be it guaranteed minimum wages and/or a minimum of property of material and immaterial capital. Such a twofold endowment would induce individuals to take care of and protect them and it enhances their creativity and productivity in their working places in the sketched financial, real productive political and social systems. The resulting broader societal engagements represent a corrective to the actually increasing distance between political governance and the values of the population. Complementing political democracy with an economic democracy augments the power of the population and contributes to a redistribution of properties, favours their human-centered reorganisation and enhances the development of human-centered values.

7. Social Power

We distinguished between the societal power structures as an interdependent system of financial, real productive and political powers and characterised social power as the potential of the population to redistribute power within the society. As the population is involved in all societal processes and all changes depend on human activities, it is only more social power of the population which can redistribute the societal power, because each society is man-made and can only be changed by humans. Therefore, the transition into human-centered development is bound to empower the population. Already now, purely economic estimates show that human capital accounts in industrial countries for about three quarters of total economic resources. A redistribution of properties, their human-centered reorganisation and an increase in human-centered education are interdependent and each of the three approaches can contribute to human development. In the face of existing vested interests in properties and their organisation and the increasing consciousness of the immense irrationalities of the society today, the overall increase in human-centered education may be more feasible than a redistribution and reorganisation of properties.

“Human-centered education will question the traditional educational systems fundamentally, including the role of universities in education.”

Nearly all investigations of national and global developments propose more education and an increase in human capital formation both for the industrialised and less industrialised world. But, if we look into some detail it is mainly meant as a contribution to a higher and slightly modified economic growth and in the face of changing labour markets, for better employability. Neoliberal education policies expect from higher qualification a redistribution of properties, because higher income should enable workers to save more and each person is considered to be able to accumulate productive capital and possibly enlarge the alternative sector. No doubt, this may have a certain effect, but at the same time it represents an individualistic concept to protect the enormous inequalities of existing wealth distribution and its handling according to prevailing efficiency targets.

Human-centered education goes beyond the integration and adaptation of humans to the existing distribution of properties, their organisation and presently governing values. It puts humans at the centre of societal development and intends to unfold their creativity and productivity in favour of a human-centered society, where the techno-organisational equipments are only “things” for an increase in individual and societal security, welfare and well-being. Such a perspective is an immense challenge for educational systems, which in history have always been prone to the demands of dominant power structures, starting from religious to mercantilistic and industrial demands and culminating in present concepts of Industry-University cooperations. Human-centered education will question the traditional educational systems fundamentally, including the role of universities in education.

Human-centered education will enhance the consciousness of global economic, social and ecological limits and the educated population will contribute to the emergence of regional and global social capital. But human-centered education has to be underpinned by the discussed advanced strategies for a redistribution of properties and their organisation. Transferring real productive capital by a Marshall Plan and more direct investments in less industrialised countries, decentralising the financial system, the establishment of human-centered hierarchies in production and a really political and economic democratic governance will allow the development of regional and global social capital, which are decisive for a transition into global human-centered society.

“Social power of the population has to be increased through widespread human-centered education, more participation in political and economic decisions, secure minimum income, freedom of choice and organisation of autonomous individuals.”

8. Summary and Perspectives

The presented outline of prevailing global developments and their main power structures lead us to think about crucial strategies for a redistribution of societal power, which are necessary for a transition into a human-centered global development. In the face of rapid changes and the enormous complexity of global development, its many dimensions could only be shortly touched and need deeper investigation. But the adopted approach to get a systemic picture is highly legitimate, because most comparable investigations are much more fragmented and neglect the interdependencies of power structures in a finite world. Moreover, to characterise main empirical relations between the economy and societal power, references are needed for traditional economic treatments, which overlook the new qualities of the emerging global society. For bridging these gaps, we presented for each of the discussed areas a widely accepted description as well as rather moderate reform proposals for the existing power structures. This demonstrates the enormous uneasiness with the existing power structures. Therefore, we go further and derive the following human-centered strategies for a redistribution of societal power:

- a. Industrialised countries should abandon their self-referential strategies and adopt a global perspective by a domestically strong socio-ecological reorientation with low economic growth and shortened working time, increase direct investments, reduce global trade and pay back partly the cost of former colonialism by a Global Marshall Plan.
- b. Less industrialised countries should activate their huge human and natural resources by developing their industrial and alternative productive activities, establish human-centered educational systems, define clearly the property rights of their resources, develop mixed economies with more democratic governance and abandon export-led economic growth.

- c. The rather unipolar global financial system has to be decentralised toward a more democratically controlled multipolar currency system, private and central banks have to abstain from the creation of artificial money, avoid debt accumulation and wealth inflation and reduce their influence on real productive activities and political governance.
- d. The management of real production has to retreat from the coalition with the financial sector, reestablish a coalition between firms' management with the employees, increase the creativity and productivity of employees by a turn from capital-centred to human-centered hierarchies and cut back augmentation of growth in favour of service-augmenting strategies.
- e. Political governance has to avoid dangerous tendencies toward plutocracies, channelise increasing informal and legitimate political powers into democratic processes, reorient bureaucratic administration toward services for the large population and encourage political voting in an economic democracy where each individual has a guaranteed minimum income.
- f. Social power of the population has to be increased through widespread human-centered education, more participation in political and economic decisions, secure minimum income, freedom of choice and organisation of autonomous individuals into social capital, which increases the social capital of the larger population.

Evidently, the implementation of these strategies can only be expected in the long-term and as societal development is an open process, the strategies may be subject to modifications. But their main orientation to turn from a capital-centred to a human-centered development where humans are at the centre and "things" are not more than instruments for higher security, welfare and well-being will remain. As we already detected strong resistances against moderate reform proposals, they will certainly increase; they may come from vested interests or simply from lack of insight. However, the simultaneous approach to redistribute the basic means of societal power, the properties, their organisation, handling values and the formation of a global social capital opens up strong perspectives for a global human-centered society.

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Original Minds: Sri Aurobindo – Integral Scientist

Walton Stinson

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Editorial Note: *This article is the first in a new series on individuals of the past and present who offer fresh perspectives and fundamental insights into the nature of reality, social processes and humanity's place in the world.*

Sri Aurobindo was a multifaceted man, viewed in different ways by different people. To some he was a spiritual or religious figure, a poet and philosopher, and to others he was a political activist and a leader of India's independence movement. Just as significantly, he was also a scientist.

“The big questions about the meaning of life are the most important questions of all because the answers (or absence of answers) establish the context for all choices about how to live one's life.”

Science was not always as it is today, unwilling to acknowledge a “final cause” or to espouse theories about the nature of the “non-material reality”. In fact, even a cursory look at science from Pythagoras through Galileo reveals a completely different set of ethical rules for the conduct of scientific investigation that exist today. While the strict focus on the material/physical world may have had its origins in early conflicts over church doctrine in which the church prevailed, the situation today reflects the enormous success by the scientific establishment in raising humanity's standard of living and it is completely self-imposed. A figure like Pythagoras, for whom mathematics was simply a byproduct of his larger interest in the non-material realm, would find this situation unimaginable.

Sri Aurobindo was certainly a scientist. However, he was not a part of the scientific establishment, or any establishment for that matter. As such, he was not constrained to limit his inquiry to the empirically verifiable and in fact took on as his primary objective the creation of a “unified theory”. (The word ‘science’ originally meant “the state or fact of knowing”; knowledge, as opposed to intuition, beliefs, etc. It also means “systematized knowledge derived from observation, study, and experimentation carried on in order to determine the nature or principles of what is being studied.”)

Published in his book *The Life Divine*, his theories provide a cohesive, rational, and logical construction of the nature of existence. Its reputation as “dense and unapproachable” is a direct result of his desire to explain completely the reasoning process which led him to the conclusions that he draws. It is as if he is inviting anyone capable of following his reasoning to judge for themselves the quality of his conclusions.

Not possessing his intellect or education, few readers have the capacity to follow, much less critique, the reasoning. However, and here’s where Human Science comes in, the true test of the theories of *The Life Divine* is not in examining the reasoning, but by examining the results obtained by applying the fundamental principles it clearly identifies. These principles all have one thing in common. They rest on a central idea that life emerges from consciousness rather than vice versa.

New principles of accomplishment that emerge from this “radical” shift in perspective can be applied to any field of life. Moreover, the results are not dependent on holding a particular faith or belief system. In fact, Sri Aurobindo discouraged attempts to divinize himself or his work. As a scientist, he clearly desired his theories to stand on their own merits.

The big questions about the meaning of life are the most important questions of all because the answers (or absence of answers) establish the context for all choices about how to live one’s life. In the past, it was impossible to inquire deeply into this subject without being labeled an empiricist or a theologian. Sri Aurobindo’s work projects this inquiry, once again, into the realm of science.

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Human Attitudes that Prevent the Advance of Human Progress and Civilization

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Abstract

Human civilization is a long record of the evolution of human thought. Rationality enables civilizations to progress. Since the time of Socrates, human advancement has relied heavily on the power of logic and reason. Logic involves study while reason involves implementation. Converting reason into action would require not so much new creativity but a greater strength. If reason is implemented with the required clarity, it has the power to save the world from imminent danger. It has the ability to function in a way that secures the greatest truth in a given set of circumstances. Implementing Reason requires that man does not repeat his past errors. The world has not yet outgrown the uses of Reason. The most rational course of action would be to address human issues and to take care of human interests. Conflicts can be avoided by resorting to a values-based approach.

Man is the crown of terrestrial life and exhibits reason as the crown of his accomplishment. Reason and logic are the finest tools of his mind. While senses involve observation, reason involves thinking. Human civilization is thus a long record of the evolution of human thought. When we speak of improving comforts we mean those comforts that issue out of technology. But what we call technology is only the material expression of a thought. It is not as if every thought is capable of technological conversion. Only those thoughts that exhibit reasoning are capable of such a conversion.

As such, rationality is what enables civilizations to progress. Sri Aurobindo says that Socrates and Newton are the two greatest thinkers the world has seen. So, what is thinking? Thinking involves connecting two different thoughts. Creative thoughts connect seemingly contradictory thoughts. It is thoughts such as these that made river-bed settlements in ancient times possible. Further creative thoughts laid down the rules of village life. The thinking of Newton and Socrates represents one of the highest levels of thinking.

An apple falling is a very common sight that does not raise any question in the common man's mind. Either the common man thinks about using the apple at home for eating or selling it at the market for a price. One is domestic consumption while the other is for commercial benefit. But Newton tried to connect the falling of apple with Nature's functioning, which led to the discovery of the law of gravitation. There is no higher physical field of enquiry and therefore his thought was placed at the summit. The fact that Socrates is remembered

even today is mainly because his mind dwelt on higher themes of knowledge. He observed the behavior of people, especially youth. He could see the difference between the highest knowledge and the simplest of thinking. That led to the birth of logic which remains the greatest tool of mind to this day.

Since the time of Socrates, human advancement has relied heavily on the power of logic along with the power of reason. The difference between them is a difference in theory and implementation. While logic is a systematic study, reason is the application of logic. Accomplishment in life today stands as the result of logic and reason. It will not be farfetched to say that civilization is the result of rationality. All products that we use in civilized life come only out of rational thoughts. All great institutions of civilized life such as agriculture, trade, urban life, education, government and transport are all products of civilized life. Supposing they are not effective, they will all quickly disappear. Because of the dynamism behind the application of reason, it soon spreads all over the world. Over the centuries, humanity has acquired the capacity for Reason which it uses as its prime tool to seek knowledge. Even then, it is beset with problems some of which look to be intractable. Some are so problematic that they seem to generate additional problems of their own. This only shows that knowledge has exhausted its capacity and is acting in the reverse now. Though this is not new, it is still worth some consideration as it appears to be very complicated.

When FAO predicted a serious famine in India, the country woke up in time and turned a serious problem into a great accomplishment called the Green Revolution. Post the 2nd World War, the world situation was conducive to the abolition of all wars, but that could not be implemented due to the irreconcilable differences between superpowers. The power of Veto that allows for cancellation of decisions paved the way for the formation of U.N. From the point of view of the big Five, it was eminently rational to introduce the power of Veto and thereby pave the way for the formation of the U.N. Solving such major problems requires that we make rational decisions.

Physical labor is accomplished using the strength of muscles. When mind starts thinking, its powers of Reason and Logic are commissioned. These are powers that await our call. They have rarely failed man so far. This is verifiable from recorded history, recent as well as long ago. Such instances are innumerable. Corporate history also endorses this view. Chrysler Corporation set a record though of a bad sort. It created the largest debt burden in all of corporate history. Economists all over the U.S took the stand that Chrysler had no option but to close down. They were right when they looked at Chrysler from a conventional point of view. Lee Iacocca took charge on an annual salary of one million dollars. But after assuming charge, he very much regretted his decision. He took charge of a company that spent 50 million dollars a day but only had 10 million in the bank. 39 out of 40 VPs were lacking discipline and hard work. While he went on a tour of the company's facilities, workers made fun of him as they engaged in playing cards and indulged in drinking sessions. Debt peaked at the level of 1700 million dollars. He felt like running away but did not choose to do so as he had made a commitment. Awed by the enormity of the challenge, his vision became blurred and his diabetes shot up way beyond normal. Against all odds he turned Chrysler upside down to the amazement of everybody around. Aligned against him were banks, the press,

public and those with a very fertile imagination. It is doubtful if anybody else in his position would have even known what to do. But, like a General tasked with the job of inspiring a retreating army, he set about his work with visionary enthusiasm.

There have been Generals who have managed to inspire a retreating army to fight a numerically superior army and even win the battle. Such leadership by able Generals has generally won battles as evident in the lives of Henry V, Napoleon, Churchill and many other lesser-known individuals. Inspiration transforms failure into victory. While Napoleon won victories promising loot, Henry V allured his soldiers promising eternal fame. As for Churchill, he inspired his soldiers with an offer of blood, sweat and tears.

A question arises as to whether Iacocca could have functioned like Churchill. It was possible for him to make key decisions but the question arises as to who would have been able to implement all of them. He was strong enough to dismiss 34 VPs in his office. He also dismissed a few thousand excess labor force. As part of his decision-making, he resolved to design a small fuel-efficient car. Furthermore, he appeared personally on TV assuring customers that they could return their Chrysler car if they did not find its performance satisfactory. Reforming refractory labor requires the strength of a giant. In that sense he was really a giant of a man. What lay behind that miracle? All he used was only the power of reason. With the looming petro crisis it only makes sense to give up cars that consume a lot of petrol and opt for fuel-efficient cars. How was it possible for a company that was on loan default to persuade 400 banks to lend more loans? He asked the American government for a 10-year loan guarantee. He was asked by the government to speak to the Congress. Many years before joining Chrysler, he had taken a course on public speaking and now he put that forgotten skill to use. The talk he gave to the Congress made it respond.

Failure is often followed by victory. However, we see practically that failure is never followed by success but by total vanishing of the institution. All ancient civilizations that declined simply vanished from the scene. The British Empire too vanished like that. However, if such a fallen person does recover, he or she will definitely survive and rise higher. This is because the energy needed to reverse a failure generates a momentum that propels man to greater heights. This is normally at a greater speed than normal acceleration. The man who recovers from failure will be a bigger success than one who has never failed. In a record 3 years, Iacocca cleared all the loans, gathered an equal amount of savings and released the American government from its loan guarantees.

It requires profound insight to understand that Iacocca never used any miraculous powers to obtain the results that he got. The only thing that he did was to employ the power of rationality to his advantage. In panic situations mind normally does not think at all as the panic forces the mind to stop thinking. In such situations mind uses panic to justify its inaction. Though reason is a powerful tool, there are plenty of other agents in life that can command it to serve them. Such an arrangement can serve up to the penultimate stage which is what the Pakistani leader Jinnah found. At the time of the partition of India, Jinnah took the stand that the whole of Bengal and the Punjab must come to Pakistan. He further argued that a Muslim in Bengal is first a Bengali and then a Muslim. He found that Mountbatten agreed

with him on this point. Only later on he found Mountbatten turning around and questioning him saying that an Indian Muslim is an Indian first and a Muslim second and therefore India should not be divided.

“Converting reason into action requires not so much new creativity but greater strength.”

Though there are many politicians who can find all the correct reasoning for saving the earth from certain annihilation, the man with the proper willpower and capacity for execution is missing. After the post-war demise of war leaders, the world has not witnessed the emergence of leaders of equal stature or of world-governing policies. Even if world leaders have not emerged, ideas and organizations can take their place. When one talks about application of ideas at the international level, it often degenerates from its complex level and assumes very simple forms. Converting reason into action requires not so much new creativity but greater strength.

Critical situations are like public appearances. When a leader faces an audience, suddenly the clarity of his thinking disappears and the sequence of thoughts in his mind vanishes. It is precisely for this reason that great orators who win applause for their inspiring oration find their speeches bereft of clarity. The inspiration comes from unorganized ideas that acquire an emotional garb. Considering all this, it is fair to say that if reason is implemented with the required clarity, it has the power to save the world from imminent danger. However, it needs to be emphasized that for such a result to come about, it should be shorn of hypocritical diplomacy and implemented with Truth in all its purity.

Reason has the ability to function in a way that secures the greatest truth in a given set of circumstances. Compromises and experiences are not fully rational. Compromises take the line of least resistance and as such are not fully rational. Reason and logic aim at the widest possible truth in a given set of circumstances. Anand in Gujarat, India, is the site of a dairy cooperative society. In the '60s and '70s it was a losing concern, highly disorganized and witnessing only losses. Though the administration was active, it was not constructively dynamic. When organization lacks a proper structure, dynamism aggravates the existing disorganization. As such the whole motive was to simply maintain the organization and not to seek any higher profits. But Verghese Kurien created history by making India self-sufficient and one of the world's largest milk producers.

Had famine set in India in the 1970s there would have been no way to escape it and it would have brought a major tragedy. Fortunately, it was averted. It demonstrated the power of simple reason to bring about complex results. The last famine India suffered was in 1943 which was largely the result of the government's incompetency than any real shortage of resources. But the incompetency resulted in the loss of 3 million lives. But those were days when loss of lives was taken for granted. Disasters such as war, famine, floods, and epidemics were seen as divine agencies for offsetting population growth. For instance, the Black Plague alone killed one third of Europe's population. In those days such fatalities were accepted

as God's Will and people resigned themselves to their fate. But the very fact that humanity thinks of remedial measures these days shows a good civilizing attitude. Fortunately, society found a vaccine for plague and the scourge vanished from earth. Humanity also took up ending famine as a goal. The UN lent its support as well. Accordingly, it prepared a warning and asked for timely countermeasures. The world has not yet outgrown the uses of Reason. The Government of India did its best. There were but very meager results. The powers of Reason were not used properly. Reason, if employed, yields comprehensive truth which in turn will generate very beneficial results. Reason can also lend its support subconsciously if it is not directly employed. The famine was averted by moving surplus food from affluent areas to other areas known for scarcity. Thus was born the "Green Revolution," named by an official in the American agricultural department.

"Reason, if employed, yields comprehensive truth."

Apart from being a success in India, the food production effort spread beyond India and became global in its impact. Even if we study the project now, we cannot find anything there that could be described as something marvelous. They were all only acts of common sense. Hybrid seeds developed during that decade were imported for the benefit of Indian farmers. Preparations were made for local production of these hybrid seeds so that they did not have to be imported every time from abroad. Further encouragement was given to promote research in the area of hybrid development. All such efforts show that attempts were made to maximize the available opportunity. In that direction, farm scientists were given compensation commensurate with that of other scientists. A quasi-governmental body known as Food Corporation of India was set up to deal with problems of food production and freed from the constraints that normally went with the bureaucracy inherited from the British days. Similar corporations for seeds and fertilizers were also set up to expedite these matters. Most importantly, a floor price was guaranteed to farmers to prevent the falling of prices that normally accompanies surplus production. Actually the minister who headed the department of agriculture left that department for another in just 30 months. But in an overall sense, he fundamentally reorganized the functions of the agricultural department creating virtually new organizations. These organizations were preeminently rational. In return for such a rational effort, the Indian farmers responded, which led to magnificent results.

Thus, when Reason is properly commissioned, it goes to the roots of an issue and brings out the truth hidden there. The whole world is immersed in technology and is proud of it too. Instead it should focus more on releasing collective individuality which can correct the imbalances in the environment. Reason also demands the very same thing. There is a saying popular in U.N circles: "Correct the Man, the System will correct itself". Going by this saying, the most rational course of action would be to address human issues and to take care of human interests.

Stupidity is the inability to use common sense. An idiot fits these descriptions. One poet refers to the idiot hour that destroys centuries of work. Though man exhibits powers of reason and logic, he is also capable of stupidity. In Sri Aurobindo's point of view, man holds the key to evolution. His distinguishing capacity is that he can exceed himself. Though endowed

with knowledge and ignorance, he can choose between them. Unfortunately, he mostly prefers to make the wrong choice. Once a habit sets in, it has the tendency to safeguard its self-preservation.

“If only man chooses to solve the problems he has, he sees plenty of scope for converting them into opportunities.”

The theme of this article is that if only man chooses to solve the problems he has, he sees plenty of scope for converting them into opportunities. Man has the capacity to go to first principles to solve problems. What Chrysler and the Green Revolution achieved are miracles enough. Still if the examples are not satisfactory, one can look at what FDR, Churchill and Gandhi have achieved. Currently there is a scarcity of leaders and one finds that the world has moved from individual leadership to collective leadership of ideas. Moreover, these ideas need not be invented as great leaders did before. They are there for all to see.

In the 15th century, the hold of religion on people’s minds was great, greater than that of the rulers. Religion unified Europe far better than politics did. In those days, superstition was rife. Martin Luther rose in protest over this. Printing came to his aid to spread his message widely among the population. Science came on the scene with the sole aim of fighting superstition, a battle it is still trying to win. Incidentally, its fervor went too far and persisted for too long, leading to energizing the adversary. As a result of all this, Science itself became superstitious. The current world stands victim to this superstitious attitude of science.

The individual mind that was born in Greece became superstitious when it turned collective. Shakespeare, in writing Hamlet, signified the birth of mind in the individual. It is unfortunate that this notable fact has escaped the attention of scholars for the last 400 years. Karl Marx has commented that Capitalism carries the seeds of its own destruction. It was born as a product of commerce which is pursued for the sake of gaining profit, a big incentive for the human ego. Actually it thrives not so much on one’s own private investment but on public funding. Public investment proves to be a function of continuous higher public expectation. The volatile jump in price of shares and stocks clearly proves it to be a house of cards.

We see that crashes normally follow a boom at which point an ascending curve completes itself. The world saw its emergence first in 1929, but a minor version of it showed itself 100 years earlier. At that time there was no known mental support with which one could have counteracted the recession. The then American President who did not know what to do simply witnessed the recession and left office. It becomes necessary for us to know what reason chooses to tell us at such moments. Reason makes its appearance on the scene when the existing facts are coordinated. When there are no facts on the horizon, we need to go to the first principles. When FDR became President, he was determined to find a solution to the economic crisis. That was at a time when six thousand banks had simply failed. Every other bank that was running had queues of depositors waiting to recover the money they had

deposited. FDR then closed the banks for a week and started talking on the radio with the American public asking them to reconsider the withdrawal of deposits from the banks. He told them what was lost was only money in dollars. Thus, the public's trust and confidence in America's ability to earn money were renewed.

"In trying to become 'scientific', social scientists aped the methods of the natural sciences, thereby missing the vision of the whole truth."

The settlers had survived all the great hardships that they faced as a result of which they had built up strong self-confidence and self-esteem, which holds true to this day. Currently Americans have invested their trust in their dollar savings which has disappeared. However, what has disappeared is only money, a symbolic entity. It is a symbol of one man trusting another's integrity. Herein lies a complex web of trust. When money is born out of trust, it is only reasonable to assume that money would disappear when trust dissolves.

What was FDR supposed to offer the American citizens that would instill trust in them? He questioned the citizens as to who earned all the money and wealth the country had accumulated. Then he raised a further question as to where all that money came from. It all came from the fields and factories. He further argued that the fields and factories were still there, they had not disappeared. If they had not disappeared, then what could have gone wrong? He claimed that if something had gone wrong, the government had the power to set it right. That rang a bell in the minds of American citizens. He assured them that their deposits above 10,000 dollars would all be insured. This caused a transformation among depositors who changed their minds about withdrawing money and came forward to redeposit them.

The world today is without such fears. All we need to do is to repeat FDR's success, not his failures. What is prevailing now is the phenomenon of robots replacing workers in factories which is prompting experts to predict the end of mechanical, not creative, work culture.

In humanity's eyes, civilization leads to prosperity, which grows when man enjoys more leisure, since he gets more time to think creative thoughts, a phenomenon that is otherwise not possible in a mechanical society that works round-the-clock. Ultimately, this would mean avoiding work that is sheer drudgery. Though IT jobs fetch a very good pay, one does not find Americans choosing jobs in that field as it is sheer drudgery. Whenever technology confers an advantage to the public, the latter must be able to turn that into profit. Technology is not one man's invention. It is a social invention. People think about something and try their best to improve its usage and one day, some man ends up discovering a better way of doing it. Technology is a collective property. What happens when a technology becomes popular is that the whole public gets to benefit by it, not a few. When knowledge belongs to the whole community, we must make sure that there is an equitable distribution of the benefits to the whole community.

This is true not only of technology but also of other fields like literature, philosophy and science. When man was a hunter-gatherer, he did not communicate by speech. Then at some point he developed language which became a common possession of the community. How can anybody appropriate what belongs to the whole community for the benefit of the few? But there are some people who try this and when they do so they are voluntarily shutting the door on themselves much like the decapitation of Charles I put an end to English monarchy.

Currently one is proud of exhibiting scientific methods. In trying to become 'scientific', social scientists aped the methods of the natural sciences, thereby missing the vision of the whole truth. They say their intention is to go back to interdisciplinary studies. When they see that the environment is disturbed, they try to set it right by the very methods that created the disturbance. Some 40 years ago, the Club of Rome gave a warning that the whole world paid attention to. The warning was well received and it sounded like a success, though a negative one. Their conceptions on the "Limits to Growth" and Sustainable development warn of danger. But it is strange to hear that growth has any limit. Do values like love, sweetness or goodness have any limits? These are positive values that grow in intensity as they expand. These qualities know of no limit. 'Limit' usually refers to negative qualities that are not under control. For example, the conception of health has no known limits. However, tolerance of diseases has a set limit.

As technology grows, it places more demands on the environment, which has adverse consequences. This is not to say technology per se should be avoided. Responsibility, rather, is the need of the hour. Not what we use but how we use it defines responsibility. The same holds true in the case of money. Its accumulation was traditionally looked down upon in Eastern philosophy. Such censure is all right when man behaves as a slave to Money. But not so much when Man rightly assumes mastership of the institution he created and adapts a responsible attitude towards using it.

Developing countries need a lot of money to eliminate poverty. But unless they earn that money themselves, it does not serve any purpose. Accepting aid from affluent donors may hurt the recipient's self-esteem and induce resentment, which history unfailingly demonstrates. Modern advancements in science and technology have immensely raised the volume of communications and knowledge both of which have enormous potential to create wealth. In the midst of all these, population has a positive role to play, contrary to what the world believes. Also, GDP is calculated in a way that ignores social and individual well-being. If an index that takes well-being and welfare into account is developed, the GDP figures of developing countries may surprisingly be far higher.

Speculation that serves to enrich a few through computer algorithm is not helping the economy and therefore needs to be abolished. The twin plagues of modern life which are stress and tension need to be eliminated. It is a fallacy to assume that technology will reduce tension, which is accomplished more by psychological well-being than by machines.

Organizations usually undermine their own ideals. A developing ideal forms an organization in the hope that the organization will foster its growth. It is true that organizations are the foundations of life and the greater the organization, the more effective

will be the results. However, what is true at the physical level is not always true at the mental level. However, when ideals are given a material form in the shape of an organization, they invariably work in a detrimental fashion.

The ideal of Indian Freedom serves as an example here. At the very beginning, it was predicted that Indian Freedom could be won without any violent struggle, which was done so on the strength of her spiritual traditions. Moreover, it was further believed that India invited foreigners to invade her so as to unite her territories. Before the British called her India, the term was not even known. At the time of independence, there were some 565 principalities within the territories of India.

Several attempts have been made throughout Indian history to physically unify the country. Those who believe in this school of thought further believe that since it was India who brought the foreign invaders, she would also evict them peacefully once her territorial integrity was assured. However, past experience from the last two centuries shows that freedom had to be won by violence. When the US declared herself independent, she had to safeguard that freedom by engaging in war with Britain. Moreover, there is the additional experience of Vietnam to support the argument in favor of violence. Under such circumstances, however it is a historical fact that India won her freedom through a vote in the House of Commons. The question is how did such a thing happen? Blood was certainly shed in Indian history but it was not shed fighting the British. The British Government did not come to India with a view to conquer. The East India Company came to India for trade and found scope for taking over the administration, since most Indian rulers were inefficient. When the Mogul rule disintegrated, the British intruded, more for the purpose of maintaining law and order than with a view to rule.

Had Britain chosen to fight in 1947, a war could not have been avoided. However, Britain chose not to fight. The British must be generously credited for this. It was a peaceful transition, the likes of which history has not witnessed. There is a lesson for the whole world in that one act of historical significance. In 1848 Karl Marx asked the whole working class to revolt against the Capitalist class. His call was acted upon only in 1917. At that time the power of the call and proletarian readiness to act were very much evident. It did not go unnoticed by European governments which immediately set to work reviving working class living conditions. That robbed the Third International of much of their demands. The U.S went one step ahead and asserted that they could prove the superiority of Capitalism. By lifting the living standards of working class people, they effectively eliminated Communism from the American soil. Precisely how did they manage this? By paying their workers more, which never happened in Soviet Russia.

A civilized nation avoids bloodshed, which requires the use and application of the powers of Reason. By 1950 China emerged as a republic and by strengthening Stalin's hands, further challenged world peace. When she acquired nuclear power, her threat to world peace worsened. It would have remained a grave threat had the U.S not sought the Chinese market for trading. A political threat leading to military conflict was avoided through a trade initiative. The confrontation between Israel and Palestine is also amenable to such an initiative. Singapore has shown us the way to attain prosperity. Though she accepted

democracy, she imposed many disciplines on her citizens to generate prosperity. It worked and yielded great prosperity. Similar solutions can be worked out for India-Pakistan and Israel-Palestine.

“When it comes to solving the problems the earth faces, man should fully employ the power of Reason.”

The question is, are these conflicts beyond the power of reason to solve? The Soviet government suppressed news and facts and presented to the world a picture of itself which was not true. In Nazi Germany, Hitler used propaganda to project a false picture of Germany that worked till the end of World War II. However, these lies were exposed in the course of time and truth emerged triumphant. Countries that accuse other countries of lying are themselves not above lying. International diplomacy has a habit of distorting truth into blatant lies for official purposes. The time has come for global governments to realize this truth and change their policy into one of telling truth.

A contest held in Ukraine found speaking the Truth occupied the first place. No compromise of whatever kind should be allowed in this matter. What we call culture involves progressing from the hunter-gatherer stage to a stage where values are predominant. When the physical man relates to the collective and becomes subservient to it, he transfers the physical violence in him to the collective authority which brings it under the control of collective regulation known as Law. The knowledge of Greece transformed into Roman Law, which strengthened the Roman Empire. Violence morphed into Law over time and social power grew by trade, symbolized by the power of money. In its early days money was represented by coins and later on shifted to paper currency. This shift was effected by the Chinese 1000 years ago. Now it has taken the form of digital currency. When Americans took to European science, technology got a boost.

When it comes to solving the problems the earth faces, man should fully employ the power of Reason. This may require that he does not repeat his past errors and that he benefits from his past positive experiences. From this point of view, it may not be all that inexplicable that India won her freedom by legal processes. From being a trading colony, she became a democracy. The British Empire was really only an imperial version of global government. Had Britain continued expanding her political empire with a democratic streak, she surely would have paved the way for global government. But in the course of time she handed over the power to U.S.A, who established herself as a superpower with money power. Ultimately, money must be made to serve man, if global government is to be established.

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Book Reviews

Global Systems Change: Six Linked Perspectives

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1. **A Farewell to Ice: A Report from the Arctic.** Peter Wadhams (Prof. of Ocean Physics, Cambridge University). New York: Oxford University Press, Sept 2017, 240p, \$21.95pb. (First published in UK by Allen Lane, Feb 2017.)
2. **Global Green Shift: When Ceres Meets Gaia.** John A. Mathews (Prof. of Management, Macquarie University). London and New York: Anthem Press, 2017, 236p, \$26.95pb.
3. **Global System Change** (Summary). Frank Dixon (former Managing Director of Research, Innovest Strategic Value Advisors). Middle Grove NY: Global System Change, 2017, 486p, \$27.00pb; ebook \$20.00.
4. **For Rulers: Priming Political Leaders for Saving Humanity from Itself.** Yehezkel Dror (Prof. Emeritus, Hebrew University of Jerusalem). Washington: Westphalia Press, Policy Studies Organization, Aug 2017, 103p, \$13.50pb.
5. **How Change Happens.** Duncan Green (Senior Strategic Advisor, Oxfam). Oxford UK: Oxford University Press, Dec 2016, 268p, \$27.95 (free PDF download).
6. **Change for the Audacious: A Doer's Guide.** Steve Waddell (Boston). Boston MA: Networking Action Publishing, 2016, 222p, \$24.99pb; \$14.99 Kindle/PDF.

Change is everywhere in today's world—for better and for worse—seemingly leading to more calls for change. This condition is amply illustrated by six recent books on accelerating Arctic changes and the planetary system (Wadhams), necessary green changes in human systems (Mathews), the systemic changes we ought to have (Dixon), the need for new political leaders to elevate the future of humanity above state interests (Dror), a “power and systems approach” to change (Green), and large system change pathways (Waddell).

This review can only briefly point to some of the key ideas and concerns of the six authors. A lengthy review of each book would require extensive coverage, and, rather than doing so, priority is given to highlighting similarities and differences, and the excellent qualifications for each of the authors.

Three of the books are scholarly in style, albeit readable, while Dixon, Dror, and Green are more popularized, albeit with plenty of footnoting and/or bibliography. All six authors have something important to contribute.

1. Arctic Ice and Permafrost Melt

Peter Wadhams is Head of the Polar Ocean Physics Group at Cambridge, and has been a polar researcher for 47 years. He notes that the area of Arctic sea ice in summer has dwindled from >8 million sq. km. to less than half that. The summer Arctic sea ice does not have long to live: “the trend lines predict two ice-free months in 2016, three months in 2017, and five months in 2018.” (p.84) Two huge effects will be unleashed by this “Arctic Death Spiral”: the fraction of incoming solar radiation reflected back into space (the *albedo*) drops from 0.6 to 0.1, which “will further accelerate warming of the Arctic and of the whole planet.” (p.4) Secondly, removal of the ice cover enables surface water to warm by several degrees in summer, with the heat extended down to the seabed. This thaws the surface layer of the offshore permafrost, triggering release of huge plumes of methane. Risk of an Arctic seabed methane pulse is one of the greatest immediate risks facing humanity. The threat of methane and CO₂ emissions from decaying permafrost on land is even greater, and “inexorable.”

By 2100, the quantity of carbon emitted from thawing permafrost on land will be some 30 times the offshore methane pulse expected in the next decade. Thus, “a major climate warming boost from methane is inevitable.” (p.130) The extra temperature rise due to methane by 2040 alone is estimated at 0.6 °C. Deniers of this trend are not only the fossil-fuel supporters, but the Intergovernmental Panel on Climate Change (IPCC), which “signally fails to give warning of the demise of Arctic ice” in its 2013 Fifth Assessment Report. (p.88) This consensus view ignores the observational data in favor of accepting models that have been shown to be false.

Chapters discuss the nature of ice, a brief history of ice on planet earth, the modern cycle of ice ages (human intervention is all too likely to produce a warming faster than the Earth has ever had), the greenhouse effect, sea ice meltback, the Arctic death spiral, the problem of an oil blowout spraying the underside of sea ice, the accelerating effects of seven types of Arctic feedbacks (the most serious is the albedo feedback), the IPCC’s “complacent predictions” of sea level rise, extreme weather events in recent years, global thermohaline circulation and loss of convection in the Greenland Sea, why Antarctic sea ice is advancing despite overall warming over the Antarctic continent, remedies to reduce global warming (emission reduction, geoengineering, and carbon drawdown all have serious drawbacks), the 2015 Paris agreement (“even if fully honored, it would leave us with a warming of at least 2.7 °C”), the necessity to remove CO₂ from the atmosphere to avoid “dire consequences,” and the need for geoengineering and updated nuclear power.

COMMENT. In their 2012 report to the Club of Rome, Anders Wijkman and Johan Rockström described the record pace of change in the Arctic environment as “a canary in a coal mine, warning of the danger of abrupt environmental change on a global scale.” Wadhams expands on this warning with data and quantified estimates of how much and when, in what may well be the definitive explanation of Arctic warming. In forecasting climate, one does not want to overestimate or underestimate the dangers. Some may see this book as an over-the-top “alarmist” view that goes well beyond the IPCC. But the IPCC may well be at fault in not giving greater emphasis to this major driver of planetary change.

Also see **Snow, Water, Ice and Permafrost: Summary for Policymakers** (AMAP 2017, 20p PDF) from the Arctic Monitoring Assessment Program in Oslo, one of six working groups of the Arctic Council, which warns that Arctic climate is shifting to a new state, and that low-end estimates of global sea level rise by the IPCC “are underestimated.” *The New York Times* (24 Aug 2017, A1, A12) provides a page one map of radically shrinking permafrost extent in Alaska from 2010 to 2050, with a companion article (A12), noting that, by one calculation, carbon emissions from thawing permafrost worldwide over the rest of the 21st century “could average about 1.5 billion tons a year, or about the same as current annual emissions from fossil-fuel burning in the United States.” The article does not consider thawing offshore permafrost in the next decade, as Wadhams does, or the decline in albedo (reflectivity) that will “further accelerate” global warming.

2. Global Greening Underway

Considering Arctic warming and its impacts adds an extra boost to the climate change argument. But this is not the only reason to go green. John A. Mathews, an Australian business strategist and author of **Greening of Capitalism: How Asia is Driving the Next Great Transformation** (Stanford University Press, 2015), extends his argument in **Global Green Shift** by asserting that China is greening its energy system and its resource system by closing industrial loops and building a circular economy—not so much because of fears of global warming, but because “greening represents the only feasible way of resolving the geopolitical limits to growth” that would otherwise halt the country’s industrialization. (p.xiii) China and to some extent India must find ways to feed their huge energy and resource appetite. “For these countries, it is not so much a moral choice as an economic imperative.” (p.xiv) These two countries are now reclaiming their traditional place as leaders of the world economy in a profound transformation seen as the Great Convergence (in contrast to the Great Divergence that separated the “West” (Europe, North America, and Japan) from the “Rest”). “These are the countries where the problems are felt acutely and where the solutions present themselves most forcefully.” (p.5)

Chapters describe why it is not all about climate change, geopolitical and environmental limits to fossil fuels, where Ceres meets Gaia (CERES denotes a Circular Economy and Renewable Energy System as counterpart to the wildness of Gaia), evolutionary dynamics, ecomodernization with Chinese characteristics (decoupling natural resource use and environmental impacts from economic growth), the sixth wave of sociotechnical transitions (steam engines, railways, electricity, the internal combustion engine, microelectronics and IT, and now the shift from fossil fuels to renewables and producing food in plant factories), renaming the “BRICS” countries as “BICS” because Russia is tied to fossil fuels and shows little inclination to change, green growth strategy for China and India, the central role of finance in the green shift (e.g. green bonds), advantages of green growth development strategies (encouraging rural employment, renewable resources available to all, catch up opportunities, a bias toward innovation), peaking and urbanizing of global population, the tech frontier of renewables, how renewables enhance energy security, rebutting arguments against renewables, recirculation of resources in the circular economy, vertical farming

initiatives, cultured meat, producing clean water from desalination and waste water, and ecocities of the future.

“The “green shift” in Asia and some other developing countries is necessary but is it sufficient, considering many potential environmental calamities in the 21st century that are not adequately addressed?”

COMMENT. An upbeat overview of many positive green trends, especially in Asia, which complements “Greening Capitalism, Quietly” (*Cadmus*, 3:2, May 2017, 150-166) and the hundreds of organizations identified in **The Security & Sustainability Guide**. Also see the Global Green Growth Institute (www.gggi.org) and the Green Growth Knowledge Platform (www.ggkp.org). “Green Growth” has yet to enter political discourse in the United States, perhaps also absent in Canada and parts of Europe.

The “green shift” in Asia and some other developing countries is necessary but is it sufficient, considering many potential environmental calamities in the 21st century that are not adequately addressed? Mathews does not mention possibilities of huge regional setbacks, e.g. 2017 floods in South Asia, Houston, and Florida. And his statement that “global population is expected to stabilize at around 9 billion, and decrease thereafter” (p.115) is unsupported wishful thinking. Rather, despite a slowing growth rate, world population is still likely to top 10 billion by 2050, absent any huge war or epidemic, and continue to grow to 11 billion by 2100. Thus more demand for resources and more human congestion in shrinking space that is fit to live in, due to sea level rise, desertification, and contamination.

3. Flawed Ideas and Whole Systems

Under the regressive Trump regime, hopefully short-lived, America is moving backwards, away from green energy and environment policies, as well as policies promoting human rights, human security, and national security. Trump and his plutocratic cronies ignore science and reason, a 21st century version of America’s Know-Nothing Party of the mid-19th century.

In sharp contrast, rather than promote the conventional wisdoms of science and academia, Frank Dixon argues for a thorough rethinking in his unusual book, which summarizes a much larger work. His basic premise, arguably all too true, is that “The root cause of environmental and social degradation, and essentially all other major problems facing humanity, is our flawed ideas and systems.” (p.1) The primary thinking problem is shortsightedness or myopia, and the solution to myopia, “to resolve major problems facing humanity and achieve sustainability and real prosperity,” is to “exit the ivory tower of reductionism and begin reality-based whole system thinking.” (p.2) Stated differently on the website, “To ensure the well-being of current and future generations, we must align human ideas and systems with reality and nature.”

But first some explanation. Dixon has a Harvard MBA and spent many years as Managing Director of Research for Innovest Strategic Value Advisors (formerly the largest corporate sustainability research firm in the world; now a part of Morgan Stanley) where he oversaw sustainability analysis and rating of the world's 2,000 largest companies. **Global System Change: We the People Achieving True Democracy, Sustainable Economy and Total Corporate Responsibility** is merely a 486-page summary of a much larger work of 3,840 pages and some 3,500 endnotes, **Global System Change: A Whole System Approach to Achieving Sustainability and Real Prosperity** (Kindle Edition, \$100). The unpaginated first four chapters and part of the fifth, however, are available at www.GlobalSystemChange.com (click "Look Inside"), and a 17-page Appendix to the summary book presents the entire Table of Contents in great detail.

Chapters in the Whole System book address system change principles, the whole system perspective, the business role in system change, raising public awareness, flawed human ideas and systems (e.g. measuring success only as economic growth, failure to incorporate externalized costs into prices, limited liability), deception techniques to mislead the public, environmental principles (e.g. assume potential threats to humanity as real unless proven otherwise, take action when reasonable risk exists, ensure trustworthy government), climate change problems and deceptions, climate solutions (e.g. accurate prices, eliminate fossil fuel subsidies, energy efficiency, reduce animal product consumption), chemical problems and deceptions, genetic engineering problems, oceans, land, nuclear problems, pandemics, food deceptions and solutions, crime, privacy, schooling higher education, psychiatric drugs, empowerment and democracy, global peace and human rights protection.

The 486-page summary book includes Chapter 7 on Empowerment and Democracy, Chapter 8 on Corporate and Financial System Change, and a long Chapter 9 on Achieving Sustainability and Real Prosperity. In brief, Dixon critiques the many forms of corporate welfare, the time value of money (a.k.a. discounting the future), the US wars on terror and drugs that focus on the supply side and ignores the demand side, money creation by banks, socializing people for consumption, the financial sector demanding ever-increasing shareholder returns, the "grossly inefficient production of animal products," the counterproductive and expensive approach to crime and justice in the US, for-profit Internet companies, forced education that degrades young people, media deceptions, inadequate testing of chemicals, rapidly rising inequality, *and much more*.

Proposals include a We the People movement to unite citizens, Socially Responsible Investing and Corporate Responsibility, collaborative system change, shifting the focus of the sustainability movement to the whole system level, increasing wisdom to emulate nature, adequate safety testing of chemicals with full disclosure, genetic engineering restrictions, ending subsidies for unhealthy foods and exports, restricted drug company marketing, teaching systems thinking, *and much more*. Total Corporate Responsibility in the book subtitle is a sustainability approach combining leading-edge CR with collaborative mid-level and high-level system change.

COMMENT. The distinctive value of these two works is a somewhat encyclopedic coverage of many problems that can and should be addressed with a whole systems approach.

Dixon is especially strong on economics, finance, business, and chemicals—areas that are too often neglected by many writers. On the downside, the 486-page summary is repetitious, and could easily be edited to half its present size or less, which is probably true for the longer work, mostly not seen. Secondly, it has little to say about the “Global System” (e.g., the United Nations has only one mention in passing, and there is no mention of its 17 Sustainable Development Goals which may be less than the thorough rethinking proposed here but potentially a big step forward; China has a couple of brief mentions in the index, Russia and Europe have none). Instead, the focus is almost entirely on the United States and its obsolete and counter-productive ideas and systems, although surely with lessons to be learned elsewhere. Finally, for better or worse, this book is overly polemical and highly idealized. It is valuable to articulate system-based critiques and “utopian” solutions. Systems thinking is surely needed, but, considering the ongoing fragmentation of academia and society in general, we can’t hope for any transformation anytime soon—especially considering the many competing movements for social betterment such as The Next System Project and the New Economy Coalition. Meanwhile, sadly, the US is moving dangerously in the opposite direction under incompetent Trumpism.

“It is not science and technology that endanger humanity, but human choices or errors.”

4. Human Evolution at Stake

A very different idealized work is provided by [Yehezkel Dror](#) in the form of an “urgent memo” not only to political leaders but also to “all who are worried about the future of humanity and realize that ‘politics as usual’ is unable to take care of it.” The cascading power of science and technology is bipolar: enabling unprecedented human thriving or devastating catastrophes that could end human existence.

But it is not science and technology that endanger humanity, but human choices or errors perhaps involving lethal viruses immune to all antidotes, super-intelligent robots, nanorobots out of control, large-scale unemployment due to advanced robots, “hard” human enhancements leading to a “post-humanity,” a nuclear war making Earth uninhabitable, scarcity of essential materials, molecular engineering, and humanity-caused climate changes causing catastrophic conflicts, epidemics, and scarcities.

This **For Rulers** Memo is a compact, large-print, 103-page updated version of **Avant-Garde Politician: Leaders for a New Epoch** (Westphalia Press, 2014, 350p; reviewed in *CADMUS* 2:3, Oct 2014, 170-179), in turn prefigured by two earlier Dror books, **The Capacity to Govern: A Report to the Club of Rome** (Frank Cass, 2001) and **Israeli Statecraft: National Security Challenges and Responses** (Routledge, 2011). Brief chapters in the Memo, divided into numbered paragraphs, discuss such topics as:

- the new era of “Anthroporegenesis” where humanity has the power to transform critical features of Earth and of human beings;

- human evolution at stake (where *Homo sapiens* may be entering a trap and unable to exit);
- the “feebleness of *raison d’humanité* when compared with what are narrowly regarded as national interests”;
- existential human species choices requiring global guidance under a cluster of leaders;
- dependence on political leaders for fateful choices (“not a cause for celebration” in that most contemporary leaders “are clearly unable to cope with relatively clear crucial global issues such as climate change,” and too often discount the future);
- the necessity of a growing number of *Homo sapiens* Governors (HSGs) to save humanity from itself;
- the parallel necessity of a “radically novel global order which includes decisive global governance institutions”;
- survival of the human species as the measure of all things;
- the questionable mantra of “sustainability” (which has too many ambiguities about “conserving” that does not fit an epoch of radical transformations);
- deep sources of fatal dangers (e.g. the major danger of self-righteous fanatics);
- humanity-craft principles such as curbing ultra-dangerous capacities;
- neutralizing enemies of humanity trying to kill many millions;
- limiting human enhancement;
- containing creeping dangers (reducing birthrates and extreme inequality);
- reducing Hell on Earth as a priority (Syria is a tragic and paradigmatic case);
- exploring the inconceivable (human cloning, radical human enhancement, a breakthrough in fusion technologies for better and worse, easily produced “logic bombs” that distort all algorithms, etc.);
- bridging ruptures (significant crises as humanity shifts into the new epoch);
- extending individual and group self-realization opportunities (not in materialistic and hedonistic desires, but in artistic and scientific creativity and caring for others);
- transvaluation to save humanity from itself (“much of political and moral philosophy needs revision”);
- laying foundations (making humanity into more of a moral-deliberative agency for fully legitimized humanity-craft choices);
- global governance (we must think globally and act globally, while recognizing the subsidiarity principle of handling issues at the lowest appropriate level);

- fuzzy gambling sophistication (a decisive quality for HSGs choosing amid deep uncertainty for high stakes);
- “dare the leap” if you feel called to become a HSG (it is very arduous in the best of cases).

“Achieving global systemic change requires rethinking economics, “a truly holistic approach,” prophetic vision, and “true political leadership”.”

COMMENT. At first glance, Dror’s relatively brief Memo and Dixon’s lengthy catalogs of whole system critiques and remedies seem to be sharply opposed in both form and content. Yet, despite differences in style, they are complementary: Dror addresses global governance, emerging science/technology disruptions, and the need for appropriate leadership, while Dixon focuses largely on economics, business, finance, chemicals, and environmental remedies. Arguably, each author addresses essential topics neglected by the other, together enabling a broader grasp of global systems change.

Also see “New Paradigm Quest” by Alexander Likhotal, former President of Green Cross International, who warns that “we are heading fast into a perfect storm of connected environmental, economic, and social challenges” (*CADMUS*, 2:4, May 2015, 43-47). He writes that the world requires transformational change to pave the way for a new development paradigm that enhances health and security, creates jobs, and safeguards the environment. Achieving this global systemic change requires rethinking economics, “a truly holistic approach,” prophetic vision, and “true political leadership”—a prescription that embraces the concerns of both Dror and Dixon.

5. Making Change Happen

The four books reviewed above articulate a hunger for wide-ranging transformation, and provide some of the ideas for guiding the process. But how best to cook up the ingredients to make a palatable meal? Two very different books provide some recipes.

Duncan Green, a Senior Strategic Advisor for Oxfam and Professor in Practice at the London School of Economics, addresses his book to “activists who want to change the world,” including people on the margins of society, reformers inside “the system,” enlightened business people, faith groups, and other influential players. He advances a “power and systems approach” (PSA) that interweaves thought and action to place our bets intelligently. “A PSA encourages multiple strategies, rather than a single linear approach, and views failure, iteration and adaptation as expected and necessary, rather than a regrettable lapse.” (p.7)

Chapter 1, “*Systems Thinking Changes Everything*,” notes that a defining problem of human systems is complexity, due to the sheer number of relationships and feedback loops

among their elements. “In complex systems, change results from the interplay of many diverse and apparently unrelated factors. Those of us engaged in seeking change need to identify which elements are important and how they interact.” (p.10) Change in complex systems occurs in slow steady processes and in sudden jumps, which can open the door to previously unthinkable reforms. But activists keen to change the world should look hard before they leap: “map, observe and listen to the system to identify the spaces where change is already happening and try to encourage and nurture them.” (p.20) Some principles to bring about change: be flexible, seek fast and ongoing feedback, success is often accidental, undertake multiple parallel experiments, convene and broker relationships, and learn by doing.

Chapter 2, “*Power Lies at the Heart of Change*,” observes that the most evident and discussed form of power is “visible power” in the world of politics and money, and activists usually focus their efforts on those who wield this power. But they should also consider “hidden power” that goes on behind the scenes, and “invisible power” that often determines the capacity of change movements to influence visible and hidden power. Another approach is to consider power within (self-confidence), power with (collective power through organization), power to (capacity to decide), and power over (hierarchy and domination).

Other topics include why change *does not* happen (institutional resistance, questionable ideas, entrenched interests), shifts in social norms that often underpin change, how states evolve, the law as driver of change, international law, political parties as drivers of change, the media and accountability, how the international system shapes change through hard and soft power, the UN’s Sustainable Development Goals (discussion on implementation is ongoing, and “could yet produce something that influences national governments”), transnational corporations as drivers and targets of change (opinions on TNCs seem to be more polarized than on any other topic), how TNCs drive change, citizen activism, leadership as central to understanding how change happens, the power of advocacy, and humility as the first lesson for activists. In sum, “thinking more deeply about how change happens should change everything.” (p.254)

COMMENT. Practical wisdom, case studies, and anecdotes from an experienced advocate for change, written in an informal style. But also plenty of footnotes citing the likes of Amartya Sen, Donella Meadows, Naomi Klein, Hernando de Soto, Francis Fukuyama, Mahatma Gandhi, and many more.

6. Fostering Large Systems Change

A very different approach is taken by Steve Waddell, a Boston-based sociologist and author of **Societal Learning and Change** (Greenleaf Publishing, 2005), **Global Action Networks: Creating Our Future Together** (Palgrave Macmillan, 2011), and his latest, **Change for the Audacious: A Doer’s Guide** (2016), which is about “Large Systems Change for a Flourishing Future” (this is on the cover and should be the book sub-title, but is not). The core concept is “societal change systems” (SCSs), which arise through a transformation, complexity, and systems thinking lens. The purpose here is to make SCSs visible and enhance their power and individual change actions by seeing them in this context.

Chapter topics:

- transforming our approach to change (“a large change is needed in the way we approach change”);
- understanding complexity and types of change (incremental, reform, transformation);
- five case studies of large systems change (e.g., environmental change and the rise of the Anthropocene concept);
- large systems change pathways (how to move issues from a complex state to one that can be addressed by traditional and simple approaches);
- acting with a full spectrum of change strategies (supporting change, forcing change, co-creating change, negotiating change);
- creating societal change systems (without understanding the whole, once can undermine efforts by taking poorly-informed actions);
- organizing change initiatives (action networks, communities of practice, social innovation labs);
- growing collective action (with The Collective Leadership Compass on group formation, The Systemic Change Process Map using system dynamics mapping, analyzing development of Action Networks);
- which tools to apply and when (systems mapping, foresight and scenarios, collective action processes, social media, learning processes, assessment processes, big data collection);
- five key qualities of successful change agents (attentiveness to one’s own life balance and well-being, empathy, being humble and honoring the work of others, audacity to continue once recognizing the scale of a challenge, seeing connections that are often not evident to others);
- 11 summary lessons (be transformation focused, match the tools to the tasks, hold complexity and learning as core dynamics, emphasize organizing rather than organization, etc.)

COMMENT. Waddell’s book overlaps with Duncan Green’s, especially in emphasizing a systems perspective, but it is otherwise quite different in style, with numerous tables and figures, some of them overly complex for most users. The title of the book, **Change for the Audacious**, immediately invokes reference to the current Trump-led regime in the United States, which seeks audacious change in quite the opposite direction from that suggested here, but is generally inept in realizing results. Arguably, Trumpistas would benefit from a dose of humility and reflection, but reading this book—indeed, any book—will certainly not happen! One can only hope that this divisive and potentially dangerous regime will be short-lived, and that public attention can then be invested in constructive global systems change.

A FINAL COMMENT. This lengthy review covers six books. The first two are largely empirical, on the neglected Arctic system and earth system change, and on under-appreciated greening of organizations. The middle two are largely normative, on the need for a whole systems rethinking of all of our industrial-era ideas guiding society, and on the need for more leaders to think about saving humanity from itself. The final two books are on methods for taking advantage of these observations and proposals. All six books are passionate, and implicitly or explicitly advocate a “big picture” systems perspective. And all might benefit from understanding each other. [ALSO SEE “Sixteen Worldviews” (*CADMUS* 2:2, May 2014, 155-162) for further brief reviews on global systems change.]

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Today's social problems are everybody's problems; our fragmented perception of life must become more holistic.

*Gerald Gutenschwager, Revisiting our
Evolutionary Path: The Search for Holistic Education in a Fragmented World*

Successful high-level system change will focus on addressing the true enemies of humanity—our myopic thinking and the flawed systems that result from it.

*Frank Dixon,
High-Level System Change: Protecting Business and Society*

Foresight is the ability to 'see' **allwards** in time and place: forwards, backwards, upwards, downwards, left and right, and most important of all, *inwards*.

*David Harries,
Foresight's FOUR Frames*

Democracy is not merely a mechanical set of laws and institutions. The external hardware of democracy is made viable and functional on the basis of social, cultural and psychological software.

*Garry Jacobs,
The Political Economy of Neoliberalism and Illiberal Democracy*

Social power of the population has to be increased through widespread human-centred education, more participation in political and economic decisions, secure minimum income, freedom of choice and organisation of autonomous individuals.

*Erich Hoedl,
Economy & Society: Strategies for a more Equal Distribution of Societal Power*

Sri Aurobindo was certainly a scientist. However, he was not a part of the scientific establishment, or any establishment for that matter. As such, he was not constrained to limit his inquiry to the empirically verifiable and in fact took on as his primary objective the creation of a "unified theory".

*Walton Stinson,
Original Minds: Sri Aurobindo – Integral Scientist*

When it comes to solving the problems the earth faces, man should fully employ the power of Reason.

*Ashok Natarajan,
Human Attitudes that Prevent the Advance of Human Progress and Civilization*

It is not science and technology that endanger humanity, but human choices or errors.

*Michael Marien,
Book Reviews: Global Systems Change: Six Linked Perspectives*

The Academy will continue calling for a human-centered paradigm shift that is required to confront man-made complexities, hazards and the fragile landscape affecting almost two billion people globally.

Donato Kiniger-Passigli, WAAS-UN: A Special Consultative Status and its Inspirational Value

A concerted effort to release and mobilize the energies of civil society at the national and global level based on humanity's aspiration for peace, security, freedom, prosperity, harmony and social equality is the common strategy that can propel rapid advancement for both Korea and the world community.

Garry Jacobs,

Challenges are Opportunities for Korea and the World

The most urgent task is a great educational action, to make us aware of our current responsibilities, to help us become full citizens instead of mere subjects, to enable us to anticipate.

Federico Mayor Zaragoza, The Ethics of Time in the face of Global Challenges: The Time has come for action

To transform and prepare our education system for the transition into a human-centered economy, we should start questioning the basic assumptions of current economic theory.

Elif Çepni, Transforming Education for a Transition into Human-centered Economy and Post-normal Times

The growing complexity of the work place and the uncertainty of the world around require in every individual a well-formed individuality.

Janani Ramanathan,

Building that Bridge over the Skills Gap

The role of law in seeking to marginalize the authoritative processes of economic regulation must become more responsible to a range of values broader than mere efficiency and the worship of natural law based market fundamentalism.

*Winston P. Nagan & Craig Hammer,
Social Democratic Constitutionalism, New Economic Theory & the Dangers of Neoliberalism's Attacks on Rational Government Regulation*

Continued . . .
